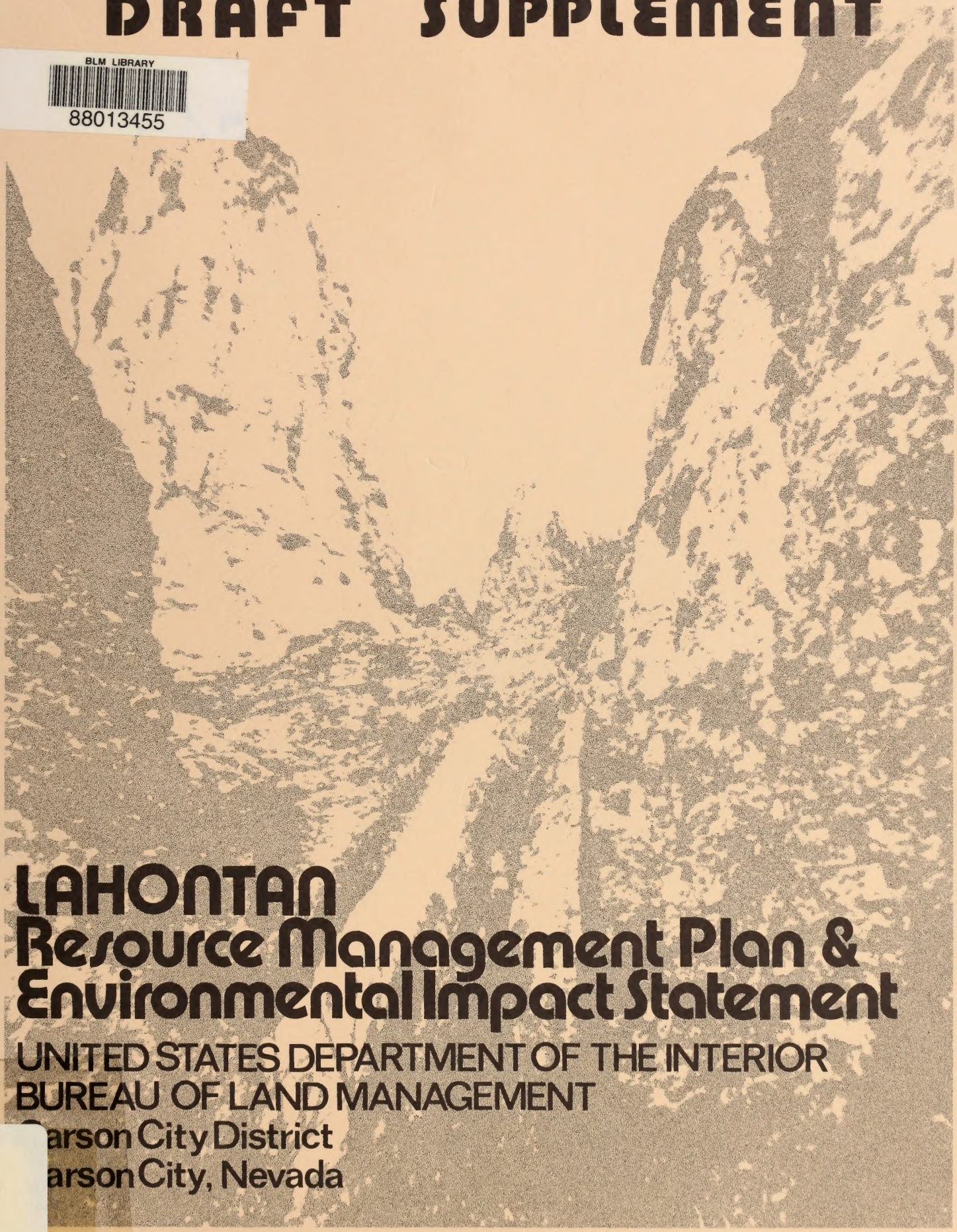
DRAFT SUPPLEMENT

BLM LIBRARY
88013455



LAHONTAN
Resource Management Plan & Environmental Impact Statement

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Carson City District
Carson City, Nevada

F
5.35
N3
235
983
uppl.

88013455

INT DRMP/EIS 84 35

SUPPLEMENT TO THE DRAFT RESOURCE MANAGEMENT PLAN And ENVIRONMENTAL IMPACT STATEMENT

LAND
SF
85.35
.N3
L235
1983
Suppl.

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

for the

Lahontan Resource Area

NEVADA

BLM Library
D-5534, Building 50
Denver Federal Center
P. O. Box 25047
Denver, CO 80225-0047

Prepared by the

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Carson City District Office

Edward F. Spang
Nevada State Director

The proposed resource management plan is a long-range plan to manage 2.4 million acres of public land within the Lahontan Resource Area. The plan has been prepared in response to Sections 202 and 603 of the Federal Land Policy and Management Act of 1976 that require the Bureau of Land Management to develop land use plans for the public lands and to study the suitability of certain lands for wilderness designation. An environmental impact statement assesses the environmental consequences of the plan.

This document is a supplement to the Lahontan Draft Resource Management Plan and Environmental Impact Statement.

For further information contact: Thomas J. Owen, District Manager, 1050 E. William St., Suite 335, Carson City, Nevada 89701

SUMMARY

SUMMARY

This document is a supplement to the Lahontan Draft Resource Management Plan/ Environmental Impact Statement (RMP/EIS). It has been prepared in response to public comments on the Draft.

Five alternative resource management plans have been prepared. A preferred plan and four alternatives examine different solutions to the two resource management issues analyzed in this supplement.

Planning Issues

Issue #1 - Right-of-Way Corridors: This issue considers whether or not to designate rights-of-way corridors through the RMP area.

Issue #2 - Soda Lake: This issue considers whether or not to designate Soda Lake as an Area of Critical Environmental Concern.

Alternatives

1. No Action. This alternative represents a continuation of present resource management and use levels.

2. Resource Protection. This alternative is oriented towards protection and enhancement of natural values with emphasis on wildlife and riparian habitats, wild horses, and wilderness.

3. Mid-Range. This alternative is designed to provide a balance between protection of natural values and production of commercial resources.

4. Commodity Production. This alternative is oriented towards production of commercial resources with emphasis on livestock and minerals.

5. Preferred Alternative. This alternative, like the Mid-Range, emphasizes a balance between resource uses. It reflects changes from the Mid-Range due to further analysis and public input in the scoping process.

Management Actions

Major management actions by alternative are:
No Action. Designate no corridors or ACECs.
Resource Protection. Designate 235 miles of corridors. Designate Soda Lake as an ACEC. Acquire 619 acres of lands adjacent to Soda Lake. Implement recreational developments at Soda Lake. Withdraw the Soda Lake area from appropriation under the 1872 mining laws.
Commodity Production: Designate 580 miles of corridors. Support nomination of Soda Lake for the National Register of Historic Places.
Mid-Range: Designate 361 miles of corridors. Designate Soda Lake as an Area of Critical Environmental Concern. Secure access via acquisition of rights-of-way. Implement recreational developments at Soda Lake.
Preferred. Designate 361 miles of corridors. Designate Soda Lake as an Area of Critical Environmental Concern. Acquire 619 acres of lands adjacent to Soda Lake. Implement recreational developments at Soda Lake.

Environmental Consequences

Construction activities and establishment of access roads along rights-of-way corridors could cause a minor increase in soil erosion, a minor decrease in surface water quality and destruction of a minimal amount of vegetation. Such activities could also result in minor impacts to cultural resources and removal of minimal numbers of trees in forested areas. The access roads could increase access for motorized recreation. The transmission towers and lines could degrade visual quality, slightly affect waterfowl populations and reduce solitude opportunities in those portions of the Wilderness Study Areas not recommended for wilderness designation. Corridor designation would reduce up front planning costs for utility companies.

Designation of Soda Lake as an Area of Critical Environmental Concern would protect the natural and cultural features of the area.

TABLE OF CONTENTS

CHAPTER	PAGE
SUMMARY	I
TABLE OF CONTENTS	II
CHAPTER ONE	
Introduction	1-1
Planning Issues	1-3
Planning Criteria	1-3
CHAPTER TWO	
Alternatives	2-1
No Action Alternative	2-2
Resource Protection Alternative	2-3
Mid Range Alternative	2-5
Commodity Production Alternative	2-7
Preferred Alternative	2-9
Implementation	2-11
Standard Operating Procedures	2-12
CHAPTER THREE	
Visual Resources	3-1
Rights-of-Way	3-2
Soda Lake	3-2
CHAPTER FOUR	
Introduction/Assumptions for Analysis	4-1
Rights-of-Way Corridors No Action Alternative	4-2
Soda Lake No Action Alternative	4-4
Rights-of-Way Corridors Resource Protection Alternative	4-5
Soda Lake Resource Protection Alternative	4-7
Rights-of-Way Corridors Mid-Range Alternative	4-8
Soda Lake Mid-Range Alternative	4-10
Rights-of-Way Corridors Commodity Production Alternative	4-11
Soda Lake Commodity Production Alternative	4-13
Rights-of-Way Corridors Preferred Alternative	4-14
Soda Lake Preferred Alternative	4-16
Unavoidable Adverse Impacts	4-17
Short Term Use in Relation to Long Term Productivity	4-17
Irreversible or Irretrievable Commitment of Resources	4-17
Mitigating Measures	4-17
CHAPTER FIVE	
List of Preparers	5-1

CHAPTER SIX
Consultation and Coordination 6-1

APPENDIX
Appendix A A-1

BIBLIOGRAPHY B-1

INDEX I-1

CHAPTER ONE

Purpose and Need

CHAPTER ONE

INTRODUCTION

Purpose and Need

The Lahontan Resource Managememt Plan is being prepared pursuant to Section 202 of the Federal Land Policy and Management Act of 1976 (FLPMA) which requires that the Secretary of the Interior shall, with public involvement, develop land use plans which provide for the use of public lands. The National Environmental Policy Act of 1969 (NEPA) requires federal agencies to prepare statements documenting the environmental consequences of federal actions significantly affecting the human environment. Since resource management plans (RMPs) qualify as significant actions, the preparation of an environmental impact statement is required.

The Lahontan Resource Management Plan (RMP) is designed to provide a framework for future management of the public lands in the Lahontan Resource Area.

The Lahontan Resource Area consists of four planning units: Pyramid, Long Valley, Fort Churchill, and Clan Alpine. Land use decisions for the Pyramid and Long Valley units are analyzed as part of the Reno Management Framework Plan and grazing EIS. Those decisions will be incorporated into the Lahontan RMP by reference. For the purposes of this document, the Lahontan RMP Area will consist of the Fort Churchill and Clan Alpine units.

The RMP area has about 2.4 million acres of public lands. Most of these lands are located in Churchill County. Smaller portions are located in Lyon, Mineral, Nye, and Storey counties (Planning Area Map).

The RMP is not a final implementation decision on actions which require further specific plans such as Allotment Management Plans (AMPs), or further process steps or decisions under specific provisions of law and regulations, such as designation of wilderness areas. It is prepared with an interdisciplinary approach designed, "to achieve integrated consideration of physical, biological, economic and other sciences" (FLMPA, Sec. 202(c) (2)).

On September 27, 1983 a Draft Lahontan Resource Management Plan and Environmental Impact Statement (RMP/EIS) was released for a three month public review period ending on January 3, 1984.

In response to public comments on the Draft RMP/EIS, it was determined that two additional issues needed to be added to the RMP. These are: 1) rights-of-way corridors and, 2) consideration of Soda Lake for designation as an Area of Critical Environmental Concern (ACEC). This document is a supplement to the Lahontan Draft RMP/EIS. It presents a preferred resource management plan and alternatives, and analyzes the environmental impacts of the preferred plan and alternatives for the two supplemental issues. This document is intended to be used along with the Draft RMP/EIS. A limited number of copies of the Draft are available on request. Copies are also available for public review at BLM offices and libraries throughout the state. Please refer to Chapter 6 for exact locations.

Planning Process Overview

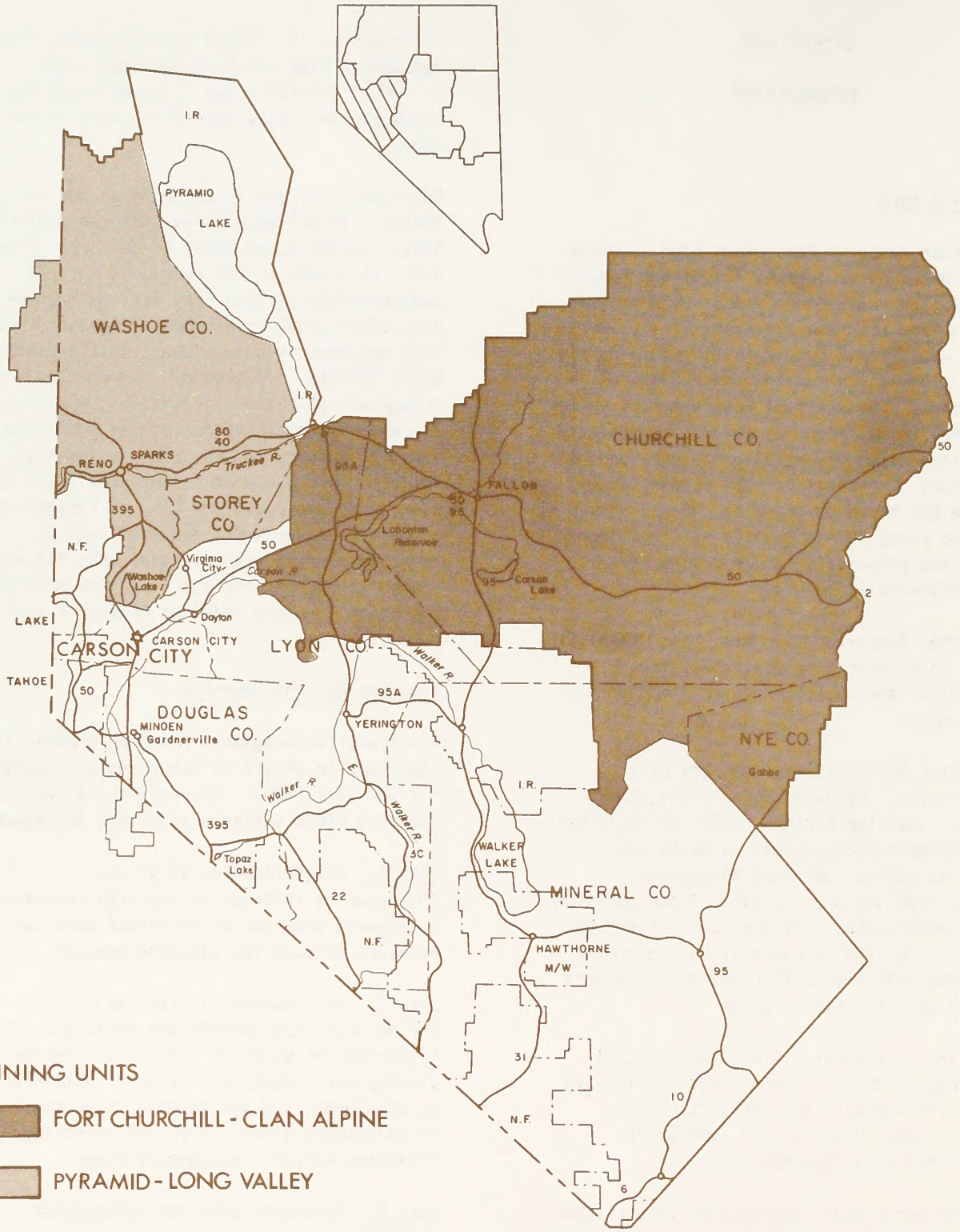
The resource management planning process is described in detail in BLM planning regulations (43 CFR part 1600). It consists of the nine planning steps outlined below and in Figure 1-1.

Step 1. Identification of Issues
This step is intended to identify resource management problems or conflicts that can be resolved through the planning process.

Step 2. Development of Planning Criteria
During this step preliminary decisions are made regarding the kinds of information needed to clarify the issues, the kinds of alternatives to be developed, and the factors to be considered in evaluating alternatives and selecting a preferred resource management plan.

Step 3. Inventory Data and Information Collection
This step involves the collection of various kinds of issue-related resource, environmental, social, economic, or institutional data needed for completion of the process.

Step 4. Analysis of the Management Situation
This step calls for a deliberate assessment of the current situation. It includes a



PLANNING UNITS

FORT CHURCHILL - CLAN ALPINE

PYRAMID - LONG VALLEY

CARSON CITY DISTRICT

Lahontan Resource Management Planning Area

description of current BLM management, a discussion of existing problems and opportunities for solving them, and a consolidation of existing data that is needed to analyze and resolve the identified issues.

Step 5. Formulation of Alternatives
During this step several complete, reasonable resource management alternatives are prepared; including one for no action, and several that strive to resolve the issues while placing emphasis either on environmental protection or resource production.

Step 6. Estimation of Effects of Alternatives
The physical, biological, economic, and social effects of implementing each alternative are estimated in order to allow for a comparative evaluation of impacts.

Step 7. Selection of the Preferred Alternative
Based on the information generated during Step 6, the District Manager identifies a preferred alternative. The draft RMP/EIS document is then prepared and distributed for public review.

Step 8. Selection of the Resource Management Plan
Based on the results of public review and comment, the District Manager will select a proposed resource management plan and publish it along with a final EIS. A final decision is made after a thirty-day appeal period on the final EIS.

Step 9. Monitoring and Evaluation
This step involves the collection and analysis of long-term resource condition and trend data to determine the effectiveness of the plan in resolving the identified issues; and to assure that implementation of the plan is achieving the desired results. Monitoring continues from the time the RMP is adopted until changing conditions require a revision of the whole plan or any portion of it.

For the Lahontan RMP process, Step 7 was completed with distribution of the Draft RMP/EIS for public review. Step 8, Selection of the Resource Management Plan will occur following public review of this supplement and publication of the final EIS.

Planning Issues

The Draft Lahontan RMP/EIS analyzed three public land issues: rangeland management, wilderness recommendations, and land disposals. This supplement analyzes two additional issues.

Issue 1: Rights-of-Way Corridors
This issue considers whether or not to designate rights-of-way corridors. Utility companies have identified the need for corridors through the Lahontan RMP Area. The designation of corridors will purportedly enable more efficient planning of future energy, communication, and transportation facilities.

Issue 2: Soda Lake
This issue involves the analysis of Soda Lake for status as an Area of Critical Environmental Concern. The Bureau acquired management of Soda Lake after publication of the Draft RMP/EIS through a revocation of a Bureau of Reclamation withdrawal.

Planning Criteria

Planning criteria have been developed to direct the resource management planning process. Criteria used to select the preferred alternative for the issues analyzed in this supplement are:

1. The preferred alternative will establish corridors to accomodate future energy, communication, and transportation facilities interfering least with other uses of the public lands.

2. The preferred alternative will designate Soda Lake as a potential ACEC if it meets the following criteria:

a) It shall have a significant historic, cultural, or scenic value, a fish or wildlife resource, or other natural system or process.

b) It shall have qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern.

CHAPTER TWO

Alternatives

CHAPTER TWO

ALTERNATIVES

Five resource management alternatives have been developed for the Lahontan Resource Management Plan (RMP) area. They are all multiple-use oriented, but each emphasizes a different balance between resources.

No Action Alternative: This alternative represents a continuation of present resource management and use levels. Actions would be taken on a case-by-case basis as circumstances dictate.

Resource Protection Alternative: This alternative is oriented towards protection and enhancement of natural values with emphasis on wildlife and riparian habitats, wild horses, and wilderness.

Mid Range Alternative: This alternative is designed to provide a balance between protection of natural values and production of commercial resources.

Commodity Production Alternative: This alternative is oriented towards production of commercial resources with emphasis on livestock and minerals.

Preferred alternative: This alternative, like the Mid Range, emphasizes a balance between resource uses. It reflects changes from the Mid Range due to further analysis and public input in the scoping process.

These alternatives were focused on the Rangeland Management, Wilderness, and Land Disposal issues in the Draft Lahontan RMP/EIS. In this supplement they have been developed for two additional issues:

Issue #1 - Right-of-Way Corridors

This issue considers whether or not to designate rights-of-way corridors through the RMP area.

Issue #2 - Soda Lake

This issue involves consideration of Soda Lake as an Area of Critical Environmental Concern.

NO ACTION ALTERNATIVE

Rights-of-Way Corridors

Objective

Continue current rights-of-way management.

Management Action

Utility rights-of-way applications would be evaluated on a case-by-case basis. Although the location of new utility transmission facilities and major transportation routes would not be limited to a formally designated network of corridors, they would be generally grouped so as to minimize their impact.

Soda Lake

Objective

Manage Soda Lake as at present.

Management Action

Do not designate Soda Lake an Area of Critical Environmental Concern.

Big Soda Lake - soda works prior to 1900.

RESOURCE PROTECTION ALTERNATIVE

Rights-of-way Corridors

Objectives

To utilize existing rights-of-way as the basis for selecting the location of utility corridors.

To concentrate adverse impacts to the environment by locating compatible rights-of-way in designated corridors.

Management Actions

1. Designate the following 187 miles of rights-of-way corridors and 48 miles of planning corridors as shown on Resource Protection Corridor Alternative Map. Existing rights-of-way corridors would be one-half mile wide on both sides of existing rights-of-ways, except as described below. Planning corridors are one mile wide. No private lands are included.

a. A-J, a corridor running north-south along U.S. Highway Alternate 50/95, from Fernley to Yerington; it contains a railroad, secondary powerline, phoneline and pipeline rights-of-way.

b. A-B-I, a corridor running north-south through the RMP area, which contains a major powerline right-of-way to southern California.

c. A-B-G, a corridor running north-south to southern Nevada and California. While this route has no utility transmission facilities, the Western Area Power Administration has an existing right-of-way that is under consideration for a major route in the near future.

d. P-D-F, a potential proposed corridor route running north-south along Nevada Highway 121, planned to include the powerlines from the proposed geothermal power area in Dixie Valley. This route forms the east boundary of the Job Peak and Stillwater Range Wilderness Study Areas.

e. I-F-E, a corridor running east-west through the resource area. It follows the main powerline from Utah supplying power to much of northern Nevada. This powerline right-of-way is the southern boundary of the Clan Alpine Range Wilderness Study Area and the northern boundary of the Desatoya Mountains WSA. The corridor does not include any portion of either WSA.

f. I-L, a corridor supplying power to the South Lake Tahoe area.

g. C-B, a corridor used to bring Idaho power to the Lahontan Dam.

h. Z-J-I, a corridor from the Fort Churchill Power Plant to Carson City. It contains a major powerline.

i. M-J-I, a corridor from the Fort Churchill Power Plant to Reno.

j. N-O, a corridor from Silver Springs to Tracy. A secondary line presently utilizes this route.

Soda Lake

Objective

Provide a high level of protection for Soda Lake.

Management Actions

1. Designate Soda Lake an Area of Critical Environmental Concern.

2. Support nomination of the Soda Lake factory site and buildings for the National Register of Historic Places.

3. Acquire via transfer, exchange, or fee title purchase, all land in T 19 N, R 28 E, Section 7, exclusive of N1/2NW1/4 [Truckee-Carson Irrigation District (TCID), and Churchill County], Section 8, exclusive of E1/2E1/2 and NW1/4 of NE1/4 (TCID), Section 18, NE1/4 of NE1/4 (TCID), and Section 17, N1/2 of NW1/4 (Bureau of Reclamation). These lands, totalling 619 acres will be added to the ACEC when acquired.

4. Implement a minor level of facility development including signs, underwater markers,

trails and other recreational facilities as needed.

5. Withdraw the area from appropriation under the 1872 mining laws.

Big Soda Lake and soda works about 1905.

MID RANGE ALTERNATIVE

Rights-of-Way Corridors

Objectives

To provide utility companies with specific area designations within which they could establish an east-west and north-south network of rights-of-ways.

To concentrate adverse impacts to the environment by locating compatible rights-of-way in designated corridors.

Management Actions

1) Designate 187 miles of rights-of-way corridors which include existing transmission lines and identify 174 miles of planning corridors, as shown on the Mid Range Corridor Alternative Map. Existing rights-of-way corridors extend one mile on both sides of the existing right-of-way. Planning corridors are two miles in width. No private land is included.

a. A-J, a corridor running from Fernley to the Fort Churchill Power Plant. The corridor follows U.S. Highway Alternate 95. It contains a railroad, phoneline, secondary power lines, and pipelines.

b. A-B-G, a corridor running from Fernley to southern California and southern Nevada. This corridor does not contain any utility transmission facilities, however, it contains an existing right-of-way held by the Western Area Power Administration. The present right-of-way is the eastern boundary of the corridor from B to G.

c. A-B-I, a corridor running north-south through the RMP area which contains a major powerline from Oregon to southern California.

d. P-Q-D-S-G, a planning corridor, running from Dixie Valley to southern California. It is expected to provide an outlet for the geothermal power to be produced in Dixie Valley. A portion of this corridor follows the existing gravel road up Dixie Valley.

e. Q-E, a planning corridor, running from Dixie Valley toward Austin. This corridor passes north of the Clan Alpine Mountains and south of the Augusta Mountain Wilderness Study Areas.

f. I-F-R-E, a corridor running from the Fort Churchill Power Plant to Utah. It contains a major powerline, supplying much of the electricity for northern Nevada. This right-of-way provides the northern boundary of the Desatoya Mountains Wilderness Study Area. The corridor does not include any part of the WSA.

g. S-R, a planning corridor, running to the south of the proposed U.S. Navy Withrawal.

h. L-J, a corridor supplying power to the South Lake Tahoe area from the Fort Churchill Power Plant.

i. Q-D-F, a planning corridor from the geothermal area of Dixie Valley to Corridor I-F-R-E.

j. N-O, a corridor used for transmission of power from Tracy to Fort Churchill.

k. C-B, a corridor from Valmy to the Lahontan substation.

l. M-J, a corridor bringing power to the Reno area from the Fort Churchill Power Plant.

Soda Lake

Objective

Provide a moderate level of protection for Soda Lake.

Management Actions

1. Designate Soda Lake an Area of Critical Environmental Concern.

2. Support nomination of the Soda Lake factory site and buildings for the National Register of Historic Places.

3. Secure via formal rights-of-way, clearance for access roads, trails, facilities, and

conservation easements for land within the crater rim.

4. Implement a minor level of facility development including signs, underwater markers, trails, and other recreational facilities as needed.

5. Establish cooperative agreements with adjacent landowners for the protection and management of Soda Lake.

Soda wagon loaded for shipment (1905).

COMMODITY PRODUCTION ALTERNATIVE

Rights-of-Way Corridors

Objectives

To provide utility companies with specific area designations within which they could locate their rights-of-way facilities.

To concentrate adverse impacts to the environment by locating compatible rights-of-way in designated corridors.

Management Actions

1. Designate 187 miles of rights-of-way corridors which include existing facilities, and identify 393 miles of planning corridors as shown on the Commodity Production Corridor Alternative Map. Existing rights-of-way corridors extend one and one-half mile on both sides of the right-of-way. Planning corridors are five miles wide. No private lands are included.

a. A-B-I, a corridor, running north-south through the RMP area, which contains a major powerline from Oregon to southern California.

b. A-O-J, a corridor, running north-south along U.S. Highway Alternate 50/95, which contains a railroad, secondary powerline, phoneline, and pipeline rights-of-way.

c. A-B-X-G, a corridor, running north-south to southern California and Nevada. While this corridor has no utility transmission facilities the Western Area Power Administration has an existing right-of-way which is under consideration as a major route in the near future.

d. X-V, a planning corridor, running north-south through the RMP area that connects the proposed geothermal area in Dixie Valley with the south.

e. I-Y-F-R-E, a corridor, running east-west through the RMP area. It follows the main powerline from Utah, supplying power to much of northern Nevada. A portion of this route forms the northwestern boundary of the suitability recommendation under this alternative for the Desatoya Mountains Wilderness Study Area.

f. K-O-H-Y, a planning corridor to northern California.

g. G-U, a planning corridor to southern California.

h. S-T, a planning corridor to the west coast. For a portion of this route the southern boundary of the corridor is adjacent to the northwestern boundary of the Desatoya Mountains Wilderness Study Area.

i. K-O-H-E, a planning corridor running east-west. It follows portions of U.S. Highway 50. It contains segments of phoneline and secondary powerlines.

j. P-Q-D-W-G, a planning corridor from the geothermal area of Dixie Valley to southern California.

k. Q-E, a planning corridor from the geothermal area of Dixie Valley towards Austin.

l. W-R, a short planning corridor, it goes around the southern border of the proposed U.S. Navy Withdrawal.

m. Q-D-V-F, a planning corridor from the geothermal area of Dixie Valley to corridor I-Y-F-R-E.

n. N-O-J, a corridor from the Fort Churchill Power Plant to Tracy and west.

o. L-J, a corridor, currently housing a major powerline to South Lake Tahoe.

p. C-B, a corridor from Valmy to the Lahontan substation.

q. Z-J, a corridor used in the transmission of power from the Fort Churchill Power Plant to Carson City.

r. M-J, a corridor used in the transmission of power from the Fort Churchill Power Plant to Reno and west.

Soda Lake

Objective

Provide a low level of protection for Soda Lake.

Management Actions

1. Support nomination of the Soda Lake factory site and buildings for the National Register of Historic Places.

Soda factory at Big Soda Lake (1905).

PREFERRED ALTERNATIVE

Rights-of-Way Corridors

Objectives

To provide utility companies with specific area designations within which they could establish an east-west and north-south network of rights-of-ways.

To concentrate adverse impacts to the environment by locating compatible rights-of-way in designated corridors. Planning corridor locations are considered to be approximate until the initial utility right-of-way is located in or around them.

Management Actions

1. Designate 187 miles of rights-of-way corridors which include existing transmission lines and identify 174 miles of planning corridors, as shown on the Preferred Corridor Alternative Map. Existing rights-of-way corridors extend one mile on both sides of the existing right-of-way. Planning corridors are two miles in width. No private land is included.

a. A-J, a corridor running from Fernley to the Fort Churchill Power Plant. The corridor follows U.S. Highway Alternate 95. It contains a railroad, phoneline, secondary power lines, and pipelines.

b. A-B-G, a corridor running from Fernley to southern California and southern Nevada. This corridor does not contain any utility transmission facilities, however, it contains an existing right-of-way held by the Western Area Power Administration. The present right-of-way is the eastern boundary of the corridor from B to G.

c. A-B-I, a corridor running north-south through the RMP area which contains a major powerline from Oregon to southern Calfornia.

d. P-Q-D-S-G, a planning corridor, running from Dixie Valley to southern California. It is expected to provide an outlet for the geothermal power to be produced in Dixie Valley. A portion of this corridor follows the existing gravel road up Dixie Valley.

e. Q-E, a planning corridor, running from Dixie Valley toward Austin. This corridor passes north of the Clan Alpine Mountains and south of the Augusta Mountain WSAs.

f. I-F-R-E, a corridor running from the Fort Churchill Power Plant to Utah. It contains a major powerline, supplying much of the electricity for northern Nevada. This right-of-way provides the northern boundary of the Desatoya Mountains WSA. The corridor does not include any portion of the WSA.

g. S-R, a planning corridor, running to the south of the proposed U.S. Navy Withrawal.

h. L-J, a corridor supplying power to the South Lake Tahoe area from the Fort Churchill Power Plant.

i. Q-D-F, a planning corridor from the geothermal area of Dixie Valley to Corridor I-F-R-E.

j. N-O, a corridor used for transmission of power from Tracy to Fort Churchill.

k. C-B, a corridor from Valmy to the Lahontan substation.

l. M-J, a corridor bringing power to the Reno area from the Fort Churchill Power Plant.

Soda Lake

Objective

Provide a high level of protection for Soda Lake, while recognizing other resource values

Management Actions

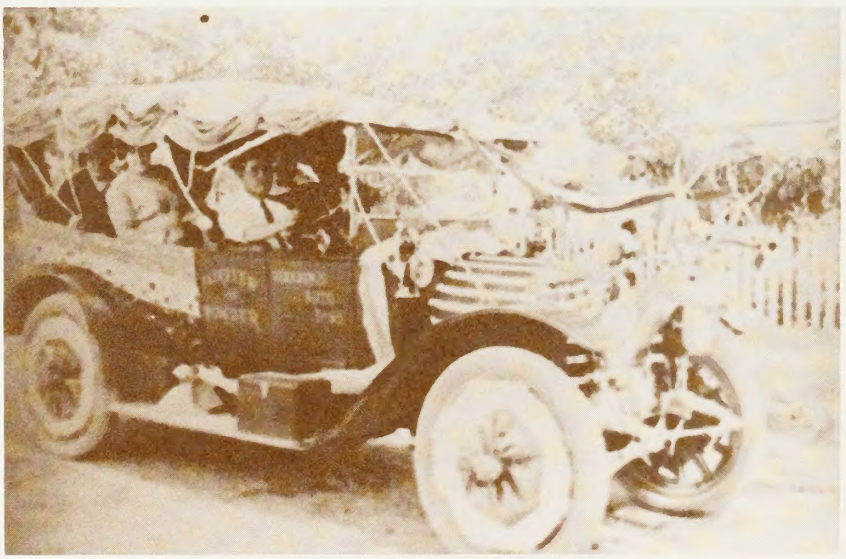
1. Designate Soda Lake an Area of Critical Environmental Concern.

2. Support nomination of the Soda Lake factory site and buildings for the National Register of Historic Places.

3. Acquire via transfer, exchange, or fee title purchase, all land in T 19 N, R 28 E, Section 7, exclusive of N1/2NW1/4 (TCID & Churchill County), Section 8, exclusive of E1/2E1/2 and NW1/4 of NE1/4 (TCID), Section 18, NE1/4 of NE1/4 (TCID), and Section 17, N1/2 of NW1/4 (Bureau of Reclamation). These lands, totaling 619 acres, will be added to the ACEC when acquired.

4. Implement a minor level of facility development including signs, underwater markers, trails and other recreational facilities as needed.

5. Establish cooperative agreements with adjacent landowners for the protection and management of Soda Lake.



Rights-of-Way Corridors

The designation of rights-of-way corridors is intended to minimize the proliferation of dispersed rights-of-way by indicating the Bureau's preferred location. Designation does not mean that future rights-of-way are restricted to corridors, nor is it a commitment by the Bureau to approve all rights-of-way applications within corridors - a corridor is not a withdrawal.

Corridor management involves encouraging prospective applicants to locate within corridors. This may limit other activities within corridors which are not compatible with right-of-way use. Land disposals within corridors will be analyzed for their impact on future right-of-way activities.

All applications for right-of-way grants, whether or not they are within designated corridors, are subject to standard approval procedures as outlined in the right-of-way regulations (43 CFR 2802). These procedures include: 1) Preparation of an environmental analysis in accordance with the National Environmental Policy Act of 1969; 2) A determination of compliance of the applicant's proposed plans with applicable federal and state laws; 3) Consultation with federal, state, and local agencies; 4) Any other action necessary to fully evaluate and make a decision to approve or deny the application and prescribe suitable terms and conditions for the grant or permit. Consultation and coordination with the public, including adjacent landowners will occur throughout the process.

Corridors provide for a variety of right-of-way uses including powerlines, pipelines, railroads and highways. The major use expected in the RMP area is powerlines.

Future rights-of-way located in corridors crossing U.S. Navy withdrawls would be subject to review by the Navy. Powerlines over 50 feet in height are of particular concern.

Soda Lake

Designation of the area as an Area of Critical Environmental Concern (ACEC) does not by itself preclude any activities allowed under the public land laws. The ACEC designation is a recognition of the special resources of an area and a commitment to provide management which protects and/or enhances the area. No action that is inconsistent with the terms of an ACEC designation or that would adversely impact an ACEC protected resource will be permitted, unless it is found through the plan ammendment process, that the public benefits of such an action outweigh the public benefits of continuing the ACEC protection and that there is no feasible alternative to the proposed inconsistent action. Protection of the ACEC is accomplished through management actions developed specifically for each individual area.

Listing this area on the National Register of Historic Places requires consultation with the President's Advisory Council on Historic Preservation prior to initiating any action affecting the area.

STANDARD OPERATING PROCEDURES

1. During the pre-construction and construction periods, the Bureau will make modifications to any right-of-way necessary to maintain stability of geologic materials, fish and wildlife habitats, the environment, and the public interest.

2. The Bureau will, if necessary, suspend any construction or maintenance activity of a right-of-way grantee if there is an immediate threat to life (including wildlife and aquatic life), property, or the environment.

3. A right-of-way grantee shall abate any conditions existing that could potentially cause irreparable harm or damage to any person or property.

4. Existing roads and trails will be used whenever possible during right-of-way construction.

5. The right-of-way grantee shall permit free and unrestricted public access to and upon the right-of-way for all lawful and proper purposes, except in areas designated as restricted by Grantee with the consent of the Bureau in order to protect the public safety or facilities constructed on the right-of-way.

6. The Bureau must approve the location of all rights-of-way prior to construction by an analysis of the proposed action through an environmental assessment, cultural resources clearance, threatened and endangered species evaluation, and a visual resource management evaluation.

7. The right-of-way Grantee will use every reasonable means to minimize erosion and soil damange in connection with any construction, rehabilitation, or maintenance operations under a grant, including (but not limited to) construction of water bars, cross ditches, or other structures.

8. Grantee shall remove or dispose of all waste in accordance with a plan approved by the Authorized Officer and in a manner consistent with federal, state and local laws and regulations.

9. Revegetation of disturbed lands will be required in areas as identified by the Bureau. The appropriate seed mixture and proper planting techniques will be specified by the Bureau.

10. The right-of-way grantee's activities in connection with the project system in key fish and wildlife areas will, when necessary, be restricted by the Bureau during periods of fish and wildlife breeding, nesting, spawning, lambing or calving activity, and during major migrations of fish and wildlife.

11. All operations under right-of-way grants will be conducted in such a manner as will avoid:
a. Permanent blockage of any drainage system;
b. Changing the character, or causing the pollution or siltation of rivers, streams, reservoirs, ponds, water holes, or springs; and
c. Damaging fish and wildlife resouces and habitat.

12. The right-of-way grantee will take such measures as are necessary to assure unrestricted passage and movement of fish and wildlife. No artificial structure or stream channel alteration that would cause a blockage to the movement of fish will be allowed.

13. Right-of-way grantee shall construct, maintain, operate and/or modify structures and facilities as directed by the Bureau to protect and minimize adverse effects upon raptors and other wildlife. Raptors will be protected through the use of "Suggested Practices for Raptor Protection on Powerlines, Raptor Research Report #4, Raptor Research Foundation, Inc. 1981". Holder shall report any and all wildlife kills, including raptor electrocutions, discovered or reported on or near project facilities to the Bureau.

14. A complete intensive cultural resources survey (BLM Class III) must be completed and documented by the Bureau, or if the Bureau deems necessary, qualified archaeologists engaged by the right-of-way applicant prior to issuance of a grant. Known or located cultural sites would be avoided within the corridors when locating roads and towers.

15. Grantee will immediately bring to the attention of the Authorized Officer all antiquities or other objects of historic or

scientific interest, including but not limited to historic or prehistoric ruins, fossils, or artifacts discovered as a result of operations under this grant, and will leave such discoveries intact.

16. Materials and colors used in tower construction will visually blend with the surrounding landscape to meet the approval of the Bureau. Only non-reflective materials will be used for towers, lines, and insulators.

17. All mining operations other than casual use occuring within an ACEC are approved through a Plan of Operation, filed pursuant to 43 CFR 3809 so as to prevent unnecessary and undue degradation.

CHAPTER THREE

Affected Environment

CHAPTER THREE

AFFECTED ENVIRONMENT

Introduction

This document is a supplement to the Draft Lahontan RMP/EIS. It includes a description of only those portions of the affected environment not covered in the Draft RMP/EIS. The Draft RMP/EIS contains descriptions of the area's soils; water resources; vegetation; riparian areas; wildlife; wild horses; visual resources; cultural resources; recreation use; livestock grazing; geology, energy, and minerals; forestry; wilderness; land use; and social and economic conditions. This document provides more detail on the area's visual resources, and describes major rights-of-way facilities and Soda Lake.

Visual Resources

The Lahontan RMP Area consists of typical Nevada high desert landscapes ranging from alluvial flats and remnant lakes to mountain peaks. The area is most often seen from the major highways of U.S. 50, U.S. 95, and U.S. Alternate 95.

Highway 50 runs east-west through the area. Starting from the western border near Silver Springs, it runs along scattered public/private lands with Class C or "common" scenic quality (BLM, Visual Resource Management Inventory, 1982). The area consists of rolling, desert-shrub covered hills. Developments consist of low density mobile home subdivisions and numerous transmission lines of varying sizes. Traveling east it crosses through private lands in the Lahontan Valley before re-entering public lands near Grimes Point. Class C scenic quality is found from Grimes Point to the Sand Mountain area, where a short section of Class B, or "high" scenic quality is passed. A small powerline follows the highway in this area. Further east it passes through the Sand Springs Range where it is crossed by a major powerline. Then, the highway drops down through Fairview Valley which has a Class C scenic quality rating. Much of the area near the highway is an alkali flat. Views of Fairview Peak (Class B Scenic Quality), the Stillwater Range (Class B scenic quality), and the Clan Alpine and Desatoya Mountains (Class A - "outstanding" scenic quality) can be seen from this area. Still further east, the highway runs through Edwards Creek Valley which is the most scenic valley in the RMP area. It has a Class B scenic quality rating and is bounded on three sides by the Clan Alpine and Desatoya Mountains (Class A scenic quality) and the New Pass Range (Class B scenic quality). A major transmission line runs through the valley, but is relatively hidden by the foothills. The line crosses Highway 50 near the eastern end of the valley, where it leaves the RMP area. The valley has a few scattered houses and dirt roads, but for the most part is undeveloped.

Highway 95, a north-south route, crosses only a small portion of public lands in the RMP area just north of the Walker River Indian Reservation. The area has Class C scenic quality characterized by rolling, desert-shrub covered hills. The highway is crossed by a major power transmission line.

Alternate Highway 95 is a north-south route running from Fernley to Mason Valley through scattered public and private lands. The route is rated Class C scenic quality, characterized by rolling, desert-shrub covered hills. There are numerous visual intrusions along this route, including low density mobile home subdivisions and numerous various sized transmission lines.

Areas of special interest off the major highways include Carroll Summit and Dixie Valley. State Route 2 runs over Carroll Summit through the Desatoya Mountains, an area of Class A scenic quality. Dixie Valley is an area of major geothermal interest, which could lead to developments requiring power transmission lines. The valley is bordered on the west by the Stillwater Range (Class B scenic quality) and on the east by the Clan Alpine Mountains (Class A scenic quality). The valley itself is rated as Class C scenic quality. It has many visual intrusions including scattered residences, developed farm lands, and roads.

The remainder of the RMP area is rated as Class C scenic quality.

Rights-of-Way

There are numerous rights-of-way scattered throughout the RMP area. They are used for roads, railroads and telephone lines, as well as the transmission of electricity, gas, and water. No rights-of-way corridors have been designated.

Railroads and Highways

The major east/west artery through the RMP area is U.S. Highway 50. It runs east from Carson City through Austin and beyond. While most interstate traffic uses Interstate Highway 80 to the north, considerable intrastate traffic, plus some vacationers use this route. It is tied to the Reno area by a short segment of Alternate U.S. Highway 50. Railroads follow the portion of U.S. 50 between Silver Springs and Fallon.

Two major north/south arteries exist - U.S. Highways 95 and Alternate 95. Both routes are frequently used by travelers from Reno to Las Vegas. A railroad follows Alternate 95 from Silver Springs to Wabuska.

Powerlines

There are three general types of powerlines. Small powerlines (40 or 50 feet tall) usually with no crossarms, serve individuals or groups of individuals. The medium-sized secondary lines (50 or 60 feet tall) tie together groups of small powerlines or are used for medium distance transmission of moderate quantities of energy. They normally have a crossarm. Both the small and secondary lines often follow roads. Only a few sections of highway in the RMP area do not have powerlines along them. They include: a section of U.S. 50 in the eastern portion of Churchill County, Nevada 121 in Dixie Valley, and the Carroll Summit Route.

The larger, major interstate powerlines are constructed on either wooden H-frames or metal towers. They vary from 80 to 200 feet tall. There are five of these routes in the RMP area. Four of the five are connected to the Fort Churchill Power Plant which lies south of the RMP area. These four go to Reno, Carson City, South Lake Tahoe, and Utah. The Utah Power and Light Line is the major importer of power to this part of Nevada. The fifth and largest line goes from the Bonneville Dam area in Oregon to Sylmar, near Los Angeles, California. Generally, the major powerlines do not follow highways, although there is often a maintenance road under them. They are normally visible where they cross a highway.

Soda Lake

Soda Lake is located five miles northwest of Fallon, Nevada (Soda Lake and Vicinity Map). Until October, 1983, the lake was under Bureau of Reclamation jurisdiction. The Reclamation withdrawal was relinquished and the lake was returned to BLM management under the public land laws at that time.

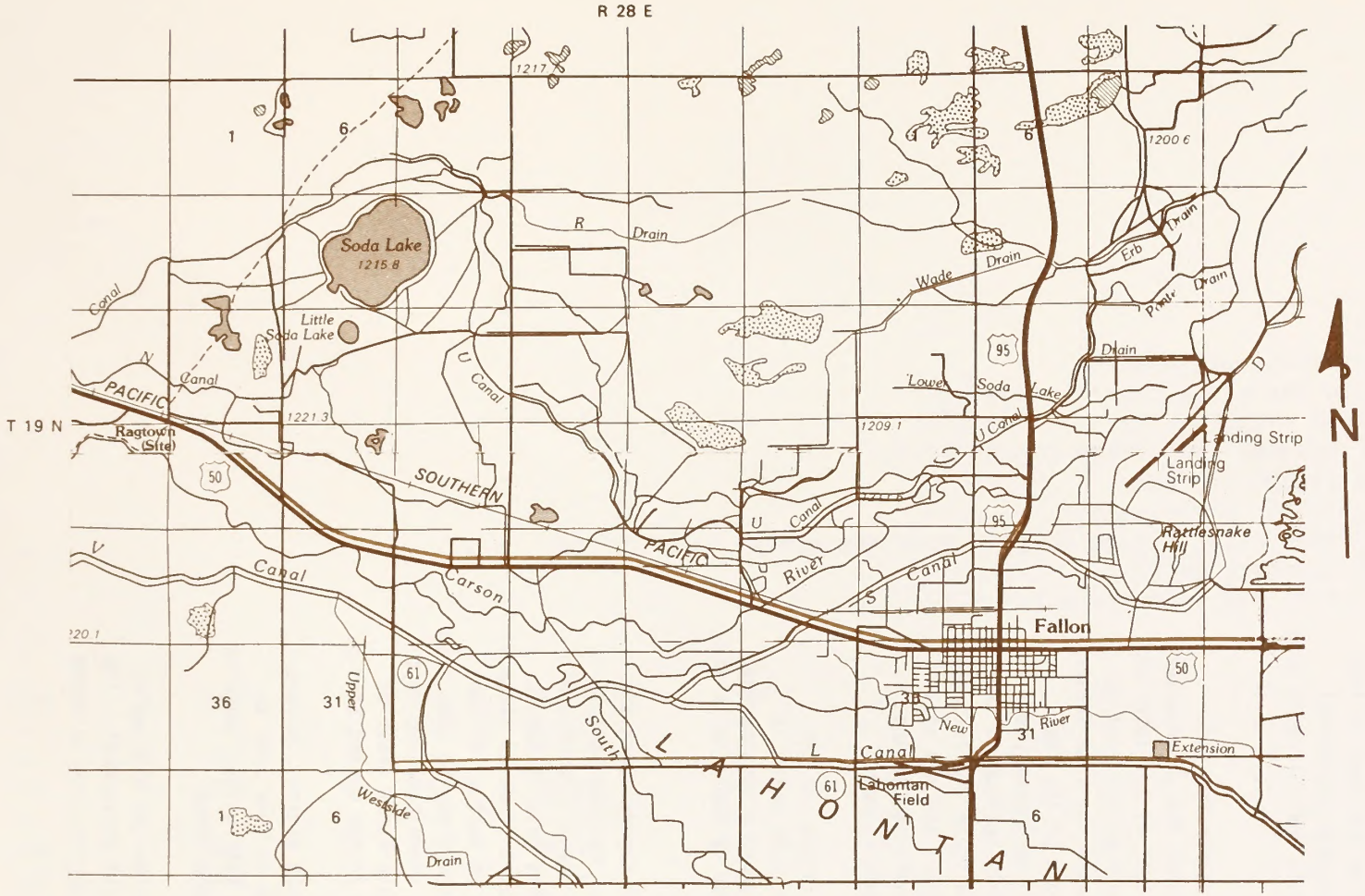
Soda Lake and nearby Little Soda Lake occupy old volcanic craters called maars. These form when a column of hot volcanic gas explodes near the ground surface, ejecting material and creating various sized craters. The ejected material has formed a steep rim on the north, east, and south sides of Soda Lake. The crater was formed during the early Pleistocence epoch, approximately 800 thousand years ago.

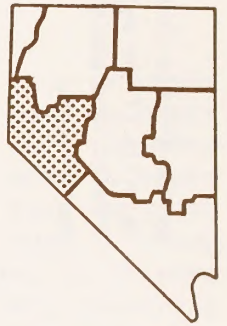
The elliptically shaped lake is 2/3 mile wide by one mile long, and contains approximately 420 acres. It is over 200 feet deep.

Soda Lake lies on the historic Carson Route of the California Trail and had the first fresh water (from a spring above the lakeshore) that emigrants could find after crossing the 40 Mile Desert.

In 1855, the first exploration and claims on Soda Lakes (then known as "Oil Lake") occurred, relating to the production of soda (Sodium Carbonate). Soda Lake was the major commercial source of soda for the Comstock mining operations, and considerable amounts of sodium carbonate were produced between 1875 and 1893.

Sodium carbonate, sodium sulfate and sodium cloride have been identified in the waters of the lake. Borax was discovered in Big Soda Lake in the late 1860's but commercial ventures failed. There have been no applications for solid leasable mineral development since land was opened to mineral entry in 1983. The current mineral potential for leasable salts has





SODA LAKE AND VICINITY

LAHONTAN RMP AREA

BUREAU OF LAND MANAGEMENT
CARSON CITY DISTRICT OFFICE
CARSON CITY, NEVADA

not been determined, however due to dilutions from groundwater the brines are less concentrated than before 1901 (Table 3-1).

There are no known locatable or saleable minerals reported in the Soda Lake area and potential for such is low.

Soda Lake is located within a KGRA (Known Geothermal Resource Area) and had been within a unit agreement until dropped in 1983. There were fee geothermal leases in the area in 1983. There are commercial, producible geothermal wells on Federal lands within one-half mile from the lake.

Irrigation water from the nearby Newlands Project began percolating into the groundwater in 1901, and by 1907 the level of the lake had risen from its original depth of 147 feet to over 200 feet. This inundated the soda factory located on the southern shore of the lake, preserving the building and equipment under about 35 feet of water. This includes a two story barnlike structure, a steam tractor, and several smaller outbuildings. All are still intact today, and may be nominated to the National Register of Historic Places.

There is a "ghost forest" located in the southeastern portion of the lake which is probably the remains of a grove of cottonwood trees which was also flooded by the rise in the lake level.

A unique natural phenomonon occurs along the northern shore of the lake. Calcite springs located in tne lakebed are depositing minerals around their outlets, forming calcite towers under the surface of the lake. Some of these towers are estimated to be as much as 20 feet high. A number of these towers may be seen from the north rim of the lake. Soda Lake and Mono Lake, California are the only known areas of occurrence of this process in the United States.

The lake is popular for scuba diving. Divers from around the region come to Soda Lake to explore its depths and the many unique features and man-made structures found there.

At present only the land below the high water mark of the lake is under BLM management. The shoreline and surrounding countryside is owned by the Truckee-Carson Irrigation District. The majority of the major access road to the lake crosses land administered by the Bureau of Reclamation.

Table 3-1
Summary of Water Quality Changes for Soda Lake

Date	Surface sample: Density[1] (g/ml)	Surface sample: Chloride (g/l)	Surface sample: Dissolved solids content (g/l)	Deep sample: Depth (feet)	Deep sample: Density (g/l)	Deep sample: Chloride (g/l)	Deep sample: Dissolved solids content (g/l)	Total lake content (thousands of tons): Chloride	Total lake content (thousands of tons): Dissolved solids content
BIG SODA LAKE									
Aug. 1867[2]	1.0975	39.4	125	--	--	--	--	960	2,800
Sept. 1882[3]	1.0995	45.7	129	100	1.098	44.3	126	970	2,800
-- 1927[4]	(a)1.02	8.77	27.4	--	--	--	--	--	--
July 1933[5]	1.022	8.20	(b)26	192	1.066	27.3	(b)87	670	--
Aug. 1958[6]	1.017	7.70	24.7	--	--	--	--	--	--
Oct. 1963[7]	(a)1.02	7.39	25.7	--	--	--	--	--	--
-- 1967[7]	1.021	7.60	25.3	197	1.050	21.5	61.8	630	1,900

(a) Estimated from dissolved solids and chloride data.
(b) Estimated from density and chloride data.
1. Density in July 1915: Big Soda Lake, 1.0563 at 27·C (Lee and Clark, 1916, p.666).
2. Based on data from King (1877, v. 2, p. 747).
3. Based on data from Chatard (1890, p. 48).
4. Based on data from Miller, Hardman, and Mason (1953, p.34).
5. Based on data from Hutchinson (1937, p. 75).
6. Based on data from Whitehead and Fetch (1961, table 1).
7. Based on data from U.S. Bureau of Reclamation.

CHAPTER FOUR

Environmental Consequences

CHAPTER FOUR

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section presents the scientific and analytic basis for comparison of the alternatives and selection of the Resource Management Plan. As outlined in CFR 1502.2(b), the discussion of environmental consequences is in proportion to the significance of projected impacts. Due to the nature of the actions proposed in the alternative in this document and the lack of significant impacts, the following discussion of environmental consequences is necessarily general.

ASSUMPTIONS FOR ANALYSIS

The establishment of corridors in itself has no impacts. It only indicates the areas where the Bureau prefers to locate major rights-of-way. It does not preclude approval of rights-of-way outside corridors, nor assure approval of rights-of-way inside corridors. Therefore several assumptions were made to facilitate the impact analysis.

1. For the No Action Alternative it was assumed that rights-of-way could be granted throughout the RMP area.

2. For all other alternatives it was assumed that rights-of-way would be granted only in corridors.

3. For all alternatives it was assumed that the most likely use of corridors would be for major electrical transmission lines (120 KV and larger). While other facilities could be developed in the corridors, transmission lines are most likely and generally have more significant impacts.

RIGHTS-OF-WAY CORRIDORS

NO ACTION ALTERNATIVE

Soils

Standard Operating Procedure No. 7 stipulates that every reasonable means will be taken to minimize erosion and soil damage, therefore impacts to the soils resource are anticipated to be minimal, however, some disturbance of surface and subsurface soil layers by access roads and construction could occur. In some areas construction activities and continued use by vehicular traffic could cause breakdown of soil structure making those soils prone to accelerated wind erosion, while in other areas the same disturbance could result in soil compaction, increasing runoff from snowmelt and summer convection storms, and causing accelerated sheet and rill erosion. The impacts could occur along rights-of-way throughout the RMP area under this alternative.

Water Quality and Quantity

Since Standard Operating Procedures No. 7 (erosion) and No. 11 (pollution) protect water resources, impacts are expected to be minimal. However, some disruption of drainage patterns and stream channels could occur during construction activities. Furthermore, some water quality degredation due to increased turbidity from sediment laden runoff could occur (Holberger, et al, 1975). These impacts could occur along rights-of-way throughout the RMP area under this alternative.

Vegetation

A minimal amount of vegetation could be destroyed along potential future transmission line maintenance roads and at tower bases. Undesirable plants such as Halogeton glomeratus (halogeton) could become established in disturbed areas. Since no corridors are proposed in this alternative, these impacts could occur along routes throughout the RMP area.

Wildlife

Impacts to wildlife would be minimal, given the standard operating procedures outlined on pages 2-16 to 18 in the Draft RMP, and 2-17 and 2-18 of this document.

Construction of right-of-way maintenance roads would open up more areas for hunting. This could occur throughout the RMP area under this alternative.

Since the rights-of-way can be located anywhere, any special habitat area or feature can be impacted. Locations near waterfowl areas could cause mortality from waterfowl flying into powerlines (USFWS, 1984).

Powerlines of the size addressed in this Supplement (120 KV and larger) are not expected to cause mortality to raptors by electrocution due to the distance between lines. They do however, provide the raptors with vantage points for their hunting, roosts safe from mammalian predators, and nest locations.

Visual Resources

Any new above ground powerline which may be built in the RMP area would to some extent degrade the scenic quality of the landscape through which it passes. This is largely due to the visual impact of the powerlines as well as any construction and maintenance activities, such as road construction and clearing of the right-of-way. New lines built alongside existing powerlines will have a lesser impact on visual quality (since the landscape has already been impacted by the existing line) than lines built through undeveloped areas. Visual impacts could occur throughout the RMP area under this alternative.

Cultural Resources

Cultural surveys and mitigation measures as stipulated in Standard Operating Procedures No. 14 and 15 would result in impacts to cultural resources under this alternative being minor. Lines routed through riparian areas would have higher potential of encountering and impacting sites than lines routed through upland areas (dry valleys, foothills, and mountains).

Indirect impacts associated with improved access to known or nearby cultural sites could occur. These indirect impacts include vandalism, pot hunting, and inadvertent destruction of cultural sites. Such impacts could occur along future rights-of-way throughout the RMP area under this alternative.

Recreation

Lands in the RMP area have been inventoried for their recreational potential through the Recreation Opportunity Spectrum (ROS). This system ranks land as to its potential to provide certain types of recreational experiences. These experiences cross a spectrum ranging from urban (developed) to primitive (undeveloped).

Construction of utility lines throughout the RMP area would most likely increase roaded natural and rural recreation opportunities and reduce the number of semi-primitive opportunities, particularly if lines were routed directly through primitive and semi-primitive non-motorized opportunity areas.

Livestock Grazing

The minimal loss of vegetation that could occur under this alternative would not result in any measureable impact to the livestock industry. If the establishment of potential future transmission line maintenance roads results in increased public access, vandalism and livestock disturbance could increase. However, such roads could also be beneficial by improving access for livestock operations. Since no corridors are proposed in this alternative, these impacts could occur along routes throughout the RMP area.

Forestry

Rights-of-ways through woodland areas would benefit the harvesting of forest resources by creating improved access to potential harvest areas. Pinyon and juniper trees could be removed during construction of transmission lines and associated maintenance roads. These impacts could occur in wooded areas throughout the RMP area under this alternative.

Wilderness

No acreage would be recommended suitable for wilderness designation. Designation of rights-of-way would be done on a case-by-case basis and most wilderness values would be lost on that portion of any WSA in which rights-of-way are granted and transmission lines are constructed. Solitude opportunities inside one or more study areas could be adversely affected by the sight of newly constructed transmission lines, even if they were built outside the WSAs, depending upon their size and distance from a given study area.

Economic Conditions

This alternative would result in continued high up-front right-of-way planning costs to utility companies. Long time frames for processing major rights-of-way would continue. However, once future rights-of-way were obtained, construction and operation costs would be low compared to other alternatives since the entire RMP area would be potentially available. This would provide the greatest opportunities for shorter rights-of-way which provide low construction costs and minimize operating costs, including maintenance and power loss. In addition, this alternative would provide for a high level of utility system reliability since it provides the greatest potential for maximizing the distance between current and future transmission lines.

This alternative could result in a decrease in the value of private lands near future transmission lines throughout the RMP area. Since transmission lines often affect the scenery as viewed from adjacent lands they are perceived as reducing the value of those lands. This would likely be limited to the short term, as there is no clear evidence that long term land values are affected by transmission lines (Holberger et al, 1975).

Social Conditions

The primary social impacts of this alternative are visual. These are outlined in the Visual Resources section. Visitor's enjoyment of the area's scenery could be reduced along all

highways through the area by this alternative. This would be a moderate intensity impact to a relatively large population.

Area residents could have the views from their property disrupted by possible future transmission lines adjacent to private lands throughout the RMP area. This would be a high intensity impact to a relatively small population. The scenic views of back country recreationists could be affected by transmission lines throughout the area. This would be a high intensity impact to a relatively small population.

SODA LAKE

NO ACTION ALTERNATIVE

Non-designation of Soda Lake as an Area of Critical Environmental Concern (ACEC) would maintain current management status of the lake. The unique features for which the area has been nominated for ACEC status may, over time, be lost or destroyed through neglect, vandalism, or lack of consideration by authorized users. Recreational use of the lake would remain low and may decline if the features which attract users to the lake are destroyed or removed. No developments would be built to enhance recreational activities. Since legal access to the lake would not be acquired, physical access for recreational visits could be cut off at any time.

Non-designation of this site could also endanger the historic soda mining structures found beneath the lake surface. The lack of ACEC protection or National Register status could mean their protection or stabilization might be neglected. This could cause deterioration or destruction from natural or man-made causes.

The land at Soda Lake would remain open to appropriation under the mining laws. Thus the entire site would be available to location for any minerals that may be found there.

RIGHTS-OF-WAY CORRIDORS

RESOURCE PROTECTION ALTERNATIVE

Soils

Standard Operating Procedure No. 7 stipulates that every reasonable means will be taken to minimize erosion and soil damage, therefore impacts to the soils resource are anticipated to be minimal, however some disturbance of surface and subsurface soil layers by access roads and construction could occur. In some areas construction activities and continued use by vehicular traffic could cause breakdown of soil structure making those soils prone to accelerated wind erosion, while in other areas the same disturbance could result in soil compaction, increasing runoff from snowmelt and summer convection storms, and causing accelerated sheet and rill erosion. Under this alternative about 100 acres could be highly impacted by roads and construction.

Water Quality and Quantity

Since Standard Operating Procedure No. 7 (erosion) and No. 11 (pollution) protect water resources, impacts are expected to be minimal. However, some disruption of drainage patterns and stream channels could occur during construction activities. Furthermore, some water quality degredation due to increased turbidity from sediment laden runoff could occur (Holberger, et al, 1975). These impacts could occur along 262 miles of future transmission line corridors proposed for this alternative.

Vegetation

A minimal amount of vegetation could be destroyed along potential future transmission line maintenance roads and at tower bases. Undesirable plants such as halogeton could become established in disturbed areas. This could occur along 235 miles of corridors under this alternative.

Wildlife

Impacts to wildlife would be minimal, given the Standard Operating Procedures as outlined on pages 2-16 to 18 in the Draft RMP 2-17 and 2-18 of this document.

Construction of additional right-of-way maintenance roads would open up additional areas for hunting. This could occur along 262 miles of corridors under this alternative.

The corridors proposed for this alternative would not impact any known special habitat areas or features.

Powerlines of the size addressed in this Supplement (120 KV and larger) do not cause mortality to raptors by electrocution due to the distance between conductors. They do, however, provide the raptors with vantage points for their hunting, roosts safe from mammalian predators, and nest locations.

Visual Resources

This alternative limits impacts to visual resources by limiting the width and scope of existing and planned corridors. A total of 235 miles of one mile wide corridors is planned for a total of 150,400 acres of land which could be directly impacted by utility construction. This is six percent of the RMP area. Of that amount only 3.5 percent would have high or moderate impacts. This is mainly limited to the line running along U.S. 95 from Fernley to Wabuska, and a section of the line crossing Edwards Creek Valley. Visual impacts would occur mostly from powerline towers or poles, road construction, and possible right-of-way clearing.

Cultural Resources

Impacts to cultural resources from this alternative would be negligible. Corridors are narrow and either follow existing lines which have already impacted sites or have been surveyed for cultural resources, or follow existing roads. Most lines are on upland areas (dry valleys, foothills, and mountains) where potential for new cultural sites is small. Any cultural site which might be impacted would be

mitigated under Standard Operating Procedures No. 14 and 15.

Recreation

This alternative would protect semi-primitive non-motorized recreation opportunities by limiting the amount of new road and trail developments from utility lines by routing corridors away from semi-primitive areas. New corridors along existing rights-of-way would enhance the status of semi-primitive motorized and rural roaded recreation opportunities.

Livestock Grazing

The minimal loss of vegetation that could occur under this alternative would not result in any measureable impact to the livestock industry. If the establishment of potential future transmission line maintenance roads results in increased public access, vandalism and livestock disturbance could increase. However, such roads could also be beneficial by improving access for livestock operations. This could occur along 235 miles of corridors under this alternative.

Forestry

This alternative would maintain the status quo of the woodland resource in the RMP area. Woodland areas would be avoided almost completely, resulting in no harvest from right-of-way clearing operations and no new roads being built into woodland areas for access for future harvest operations.

Wilderness

Any transmission lines constructed in the Dixie Valley corridor would be visible throughout the alluvial fans on the east side of the Stillwater Range and Job Peak WSAs, as well as from the main ridgelines. To a lesser extent these lines may also be visible from the west side of the Clan Alpine Range WSA.

The corridor crossing Edwards Creek Valley along the existing 230 KV powerline would have a relatively minor impact on wilderness resources in the Clan Alpine and Desatoyas WSAs. This powerline presently forms a portion of the boundary for each of these two routes and any new construction would have to take place north of this line where it bounds the Desatoya WSA, and south of the line where it bounds the Clan Alpine WSA. Natural screening would hide the majority of new construction from inside the Clan Alpine WSA. New lines would be more visible from the higher elevations of the Desatoyas since they would cross the valley floor in this area and natural screening is minimal. Impacts to solitude opportunities from designation of this corridor would be relatively minor.

Economic Conditions

The establishment of corridors in this alternative would result in reducing up-front right-of-way planning costs to utility companies. The procedures for right-of-way approval are simplified within designated corridors. The reduced time involved could be of importance in taking advantage of temporary surplus power in other regions. On the other hand, since little flexibility in future right-of-way location occurs under this alternative, it is likely that transmission lines would be longer. This would result in greater operating costs and power losses. This alternative would also limit utility system reliability since it provides minimum opportunity for separating transmission lines.

This alternative could result in a minimal decrease in the value of private lands near future transmission lines along the 262 miles of corridors proposed. Since transmission lines often affect the scenery as viewed from adjacent lands they are perceived as reducing the value of those lands. This would likely be limited to the short term as there is no clear evidence that long term land values are affected by transmission lines (Holberger, et al, 1975).

Social Conditions

The primary social impacts of this alternative are visual. These are analyzed in the Visual Resource section. Visitor's enjoyment of the area's scenery could be reduced at seven areas

where additional powerlines may cross or parallel major highways. This would be a low intensity impact to a relatively large population. Area residents could have the views from their property disrupted by possible future transmission lines in 262 miles of corridors. This would be a high intensity impact to a relatively small population. The scenic views of back country recreationists could be affected by possible future transmission lines in 262 miles of corridors. This would be a high intensity impact to a relatively small population.

SODA LAKE

RESOURCE PROTECTION ALTERNATIVE

This alternative would provide positive benefits for the recreational resource at Soda Lake. Designation as an ACEC would provide management direction for the site. Low level interpretation and recreational development would increase recreational visitation perhaps by 5-10 times more than at present. Increased public awareness from the ACEC and National Register of Historic Places designations would also increase use. Acquiring the land surrounding the lake would guarantee both legal and physical access and could provide room for development of recreational facilities in the future.

The historic structures located in Soda Lake and their natural integrity would be preserved, stabilized, and interpreted to the public under this alternative.

Withdrawal of the Soda Lake area from appropriation under the mining law could deprive the mining industry of 420 acres of newly opened public land on which to explore and file claims for minerals. However, the area is low in potential for locatable minerals, and exploration and/or production would be extremely difficult under the water surface. Any acquired lands would be available only for lease rather than location under the Mining Law.

RIGHTS-OF-WAY CORRIDORS

MID-RANGE ALTERNATIVE

Soils

Standard Operating Procedure No. 7 stipulates that every reasonable means will be used to minimize erosion and soil damage, therefore, impacts to the soils resource are anticipated to be minimal. However, some disturbance of surface and subsurface soil layers by access roads and construction could occur. In some areas construction activities and continued use by vehicular traffic could cause breakdown of soil structure making those soils prone to accelerated wind erosion, while in other areas the same disturbance could result in soil compaction, increasing runoff from snowmelt and summer convection storms, and causing accelerated sheet and rill erosion. Under this alternative approximately 350 acres could be highly impacted by roads and construction.

Water Quality and Quantity

Since Stanard Operating Procedures No. 7 and No. 11 protect water resources, impacts are expected to be minimal. However, some disruption of drainage patterns and stream channels could occur during construction activities. Furthermore, some water quality degradation due to increased turbidity from sediment laden runoff could occur (Holberger, et al, 1975). These impacts could occur along 426 miles of proposed corridors for this alternative.

Vegetation

A minimal amount of vegetation could be destroyed along potential future transmission line maintenance roads and at tower bases. Undesirable plants such as halogeton could become established in disturbed areas. This could occur along 426 miles of corridors under this alternative.

Wildlife

Impacts to wildlife would be minimal, given the Standard Operating Procedures outlined on pages 2-16 to 18 in the Draft RMP and 2-17 and 2-18 of this document.

Construction of right-of-way maintenance roads could open up additional areas for hunting. This could occur along 416 miles of corridors under this alternative.

Corridor P-Q-D-S-G follows the existing right-of-way on the northern perimeter of the Job Peak Bighorn Sheep Habitat Area. The proposed corridor with its associated development and maintenance would increase human intrusion into the area and therefore increase disturbance, including the opportunities for poaching,of bighorn sheep in the area. This corridor also follows close to or across the boundary of the Stillwater National Wildlife Refuge. Some mortality would be expected to waterfowl which could fly into the lines (USFWS, 1984).

Powerlines of the size addressed in this Supplement (120 KV or larger) do not cause mortality to raptors by electrocution due to the distance between conductors. They do, however, provide the raptors with vantage points for their hunting, roosts safe from mammalian predators, and nest locations.

Visual Resources

About 19 percent of the RMP area could be directly affected from utility corridors with adoption of this alternative. Existing rights-of-way converted to two mile wide corridors would total 187 miles, or 239,360 acres (10 percent). Planning corridors total another 74 miles, or 222,720 acres (9 percent), for a total of 361 miles or 462,080 acres (19 percent). These corridors would all adversely impact the visual resources of the area due to powerlines, road construction and possible right-of-way clearing (Appendix A).

The corridor with the highest adverse visual impacts in this proposal is the corridor route over the Stillwater Range. Sixteen miles of this route would have adverse impacts to the Class B scenery of the Stillwater Range. Some moderate impacts would accrue from the two other Dixie Valley corridors, as well as additional development of the U.S. 95 - Fernley to Wabuska

right-of-way and the Edwards Creek Valley corridor. Most other corridors result in limited impacts. Mitigation of these impacts through site selection, minimal road building or right-of-way clearing, use of topographic screening and other visual design techniques could minimize impacts.

Cultural Resources

Impacts to cultural resources from utility corridors under this alternative would be small. Most corridors follow upland areas where incidence of cultural sites is lower. Utility lines proposed for these corridors would be surveyed and any site found would be mitigated as specified under Standard Operating Procedures No. 14 and 15.

Recreation

This alternative for the most part maintains the balance between primitive-rural and urban type recreational opportunities that is currently found in the RMP area. Most corridors follow existing lines or roads, or cut across land already evaluated as being roaded natural or rural where vehicular recreation predominates. The corridor with the most affect on recreation is the route over the Stillwater Range. This promotes motorized recreational opportunities in that area, but will diminish non-motorized types of opportunities.

Livestock Grazing

The minimal loss of vegetation that could occur under this alternative would not result in any measureable impact to the livestock industry. If the establishment of potential future transmission line maintenance roads results in increased public access, vandalism and livestock disturbance could increase. However, such roads could also be beneficial by improving access for livestock operations. This could occur along 426 miles of corridors under this alternative.

Forestry

Construction of better access up East Job Canyon could result in positive benefits for the forestry resource. Woodland products in this vicinity could be harvested sometime in the future. No other corridors affect the woodland resource under this alternative.

Wilderness

Under this alternative no corridor crosses any acreage recommended suitable as wilderness, but transmission lines constructed along corridors in Dixie Valley, through Shoshone Pass, through Job Canyon and along the Stillwater Road or near the northern boundary of the Desatoya Mountain WSA, would be visible in portions of one or more areas recommended suitable for designation. Negative impacts to solitude opportunities due to the sight of such lines outside but nearby a given area, would occur. Overall impacts on wilderness resource values would still be relatively minor however.

Economic Conditions

The establishment of corridors in this alternative would result in reducing the time and cost of up-front right-of-way planning for utility companies. The procedures for right-of-way planning approval are simplified within designated corridors. The reduced time involved could be of importance in taking advantage of temporary surplus power in other regions.

On the other hand since flexibility in future right-of-way location is limited under this alternative, it is likely somewhat higher operating costs and power losses. This alternative would affect utility system reliability since it restricts the opportunities for seperating transmission lines.

This alternative could result in a minor decrease in the value of private lands near future transmission lines along the 426 miles of corridors proposed. Since transmission lines often affect the scenery as viewed from adjacent lands, they are perceived as reducing the value of these lands. This would likely be limited to the short term as there is no clear evidence that long term land values are affected by transmission lines (Holberg, et al, 1975).

Social Conditions

The primary social impacts of this alternative are visual. These are analyzed in the Visual Resources Section. Visitors' enjoyment of the area's scenery could be reduced at nine areas where potential additional transmission lines could cross or parallel major highways. This would be a low intensity impact to a relatively large population. Area residents could have the views from their property disrupted by possible future transmission lines along 426 miles of proposed corridors. This would be a high intensity impact to a relatively small population. The scenic views of back country recreationists could be affected by possible future transmission lines in 426 miles of corridors. This would be a high intensity impact to a relatively small population.

SODA LAKE

MID-RANGE ALTERNATIVE

This alternative provides a moderate degree of protection for the unique natural and cultural features of Soda Lake. Mining activity within the site could be detrimental to recreation if the lakes' features, or if proposed recreational facilities were impacted. Recreational recognition and use of the lake could increase significantly, once ACEC designation occurs, and the area becomes better known, and some recreational facilities are constructed. Development of private land around the lake could detract from the recreational setting also. A Cooperative Management Agreement with local officials and groups would simplify maintenance and management of the area and provide a convenient vehicle for local input into management actions.

This alternative would provide good protection to the historic soda factory on site, especially from both authorized and non-authorized uses at the site. Some inadvertant damage could still occur from mining activity and private development however.

Obtaining rights-of-ways and easements would provide for recreational access to and development of the lake, although long term control and preservation of the lake vicinity would not be under federal jurisdiction.

The area would remain open to appropriation under the mining laws, however, if Soda Lake was added to the National Register of Historic Places any proposed mining activity would have to be reviewed by the BLM, the State Historic Preservation Officer, and the President's Council on Historic Preservation before any activity could begin. Mitigation measures could be developed and attached as a condition of development. Status as an ACEC, although not directly limiting activities, would require the filing of a plan of operation for mining and would ensure no unnecessary and undue degradation would occur.

RIGHTS-OF-WAY CORRIDORS

COMMODITY PRODUCTION ALTERNATIVE

Soils

Standard Operating Procedure No. 7 stipulates that every reasonable means will be taken to minimize erosion and soil damage, therefore impacts to the soils resource are anticipated to be minimal, however some disturbance of surface and subsurface soil layers by access roads and construction could occur. In some areas construction activities and continued use by vehicular traffic could cause breakdown of soil structure making those soils prone to accelerated wind erosion; while in other areas the same disturbance could result in soil compaction, increasing runoff from snowmelt and summer convection storms, and causing accelerated sheet and rill erosion. Under the Commodity Production alternative approximately 1,400 acres could be highly impacted by roads and construction.

Water Quality and Quantity

Since Standard Operating Procedure No. 7 (erosion) and No. 11 (pollution) provide for the protection of water resources, impacts are expected to be minimal. However, some disruption of drainage patterns and stream channels could occur (Holberger, et al, 1975). These impacts could occur along 558 miles of corridors.

Vegetation

A minimal amount of vegetation could be destroyed along potential future transmission line maintenance roads and at tower bases. Undesireable plants such as halogeten could become established in disturbed areas. This could occur along 558 miles of corridors under this alternative.

Wildlife

Impacts to wildlife would be minimal given the Standard Operating Procedures outlined on pages 2-16 to 2-18 in the Draft RMP and 2-17 and 2-18 of this document.

Construction of right-of-way maintenance roads would open up more areas for hunting. This could occur along 621 miles of corridors under this alternative.

Special habitat areas and features impacted could include: Stillwater National Wildlife Refuge and Carson Lake (Waterfowl Production), Job Peak Bighorn Sheep Habitat Area, Lahontan Reservoir (Waterfowl Migration route), and numerous small habitat areas and features.

Powerlines of the size addressed in this Supplement (120 KV and larger) do not cause mortality to raptors by electrocution due to the distance between conductors. They do, however, provide the raptors with vantage points for their hunting, roosts safe from mammalian predators, and nest locations.

Visual Resources

This alternative creates certain adverse impacts to visual resources. The proposed width of both existing rights-of-ways and planning corridors, plus the large number of additional miles of planning corridors would result in adverse impacts to scenic quality in the RMP area. About 67 percent of the total acreage in the planning unit could be affected (1,616,640 acres) by being within the confines of a utility corridor. The corridors which would have the highest negative impacts on the visual resource if transmission lines are built, include the route paralleling U.S. Highway 50 past Sand Mountain and through Edwards Creek Valley, the Sunoco route which splits the scenic Stillwater Range, and the Carrol Summit route which intrudes on a Class A scenic quality area. A total of 580 miles of planned and existing corridors which would criss-cross the RMP area and pass through both Class A and B scenic quality areas and high visual sensitivity zones (Appendix A). Major impacts would be the intrusion of powerline towers, road construction, and possible right-of-way clearing operations.

Cultural Resources

Direct impacts to cultural resources under this alternative could be high due to the fact that 1,616,640 acres would possibly be within a utility corridor. Direct impacts from pipelines would be much higher than from powerlines due to the amount of surface disturbances involved. Cultural resource surveys and adequate mitigation work prior to construction would limit the loss of cultural resources to some extent. Standard Operating Procedures No. 14 and 15 would help to mitigate some of these impacts. Indirect impacts (deliberate vandalism, inadvertent destruction, pothunting, etc.) under this alternative could be high due to the increased vehicular access to certain areas.

Recreation

This alternative could shift the recreation opportunities in the RMP area from semi-primitive motorized and non-motorized toward roaded natural and rural opportunities to a minor degree. This conversion would be most dramatic along planning corridors which pass through unroaded or predominantly natural environments. In corridors following roads or existing lines motorized recreation opportunities could increase due construction of roads and trails associated with construction and maintenance.

Livestock

The minimal loss of vegetation that could occur under this alternative would not result in any measureable impact to the livestock industry. If the establishment of potential future transmission line maintenance roads results in increased public access, vandalism and livestock disturbance could increase. However, such roads could also be beneficial by improving access for livestock operations. This could occur along 558 miles of corridors under this alternative.

Forestry

A certain amount of woodland products may be cut and harvested due to road construction and line clearing in corridors which pass through woodland areas. Roads constructed in previously unaccessible or poorly accessible woodland areas will create positive benefits for forest products harvest by opening new areas to potential harvesting. The corridor over the Stillwater Range through East and West Job Canyons, and the Carroll Summit route are the only ones which affect the forest resource.

Wilderness

Planning corridors under this alternative would have negative impacts on the Job Peak and Desatoya Mountains WSAs.

Although no transmission line could actually be placed inside the area recommended suitable for wilderness designation in the Job Peak WSA under this alternative, the Dixie Valley corridor would adjoin the northern portion of the area. In addition, should a transmission line be built along this corridor, especially a large line (115 KV or greater), it would be visible from the main ridgeline of the WSA, having a negative impact on a visitor's feelings of solitude.

In the Desatoya Mountains WSA one existing and two proposed corridors would impact the wilderness values of the area under this alternative. Should additional transmission lines may be constructed near the existing 230 KV line which forms the northern boundary of the WSA, the cumulative visual impact could have a minor negative impact on solitude opportunities within the WSA. Topographic and vegetative screening along the Carroll Summit route would mitigate most of the visual impacts of a transmission line in this corridor, however, any lines constructed west of the WSA boundary along either this route or the U.S. 50 route could probably be seen from upper elevations on the west side of the study area. These could cause negative impacts to a visitor's feeling of isolation and solitude inside the study area, although minor.

Economic Conditions

The establishment of corridors in this alternative would result in reducing the time and cost of up-front right-of-way planning for

utility companies due to simplified procedures for right-of-way approval within designated corridors. The reduced time involved could be of importance in taking advantage of temporary power surplusses in other regions.

On the other hand, since flexibility in future right-of-way location is slightly limited in this alternative, transmission lines could be longer. This would result in somewhat higher operating costs and power losses. In addition, utility system reliability could be reduced since the opportunity to separate transmission lines is restricted.

This alternative could result in a decrease in the value of private lands near future transmission lines along the 558 miles of corridors proposed. Since transmission lines often affect the scenery as viewed from adjacent lands, they are often perceived as reducing the value of those lands. This would likely be limited to the short term as there is no clear evidence that long term land values are affected by transmission lines (Holberger, et al, 1975).

Social Conditions

The primary social impacts of this alternative are visual. These are analyzed in the Visual Resources section. Visitors' enjoyment of the area's scenery could be reduced at 15 areas where additional powerlines may cross major highways. This would be a low intensity impact to a relatively large population. Area residents could have the views from their property disrupted by possible future transmission lines in 558 miles of proposed corridors. This would be a high intensity impact to a relatively small population. The scenic views of back country recreationists could be affected by possible future transmissions lines in 558 miles of corridors. This would be a high intensity impact to a relatively small population.

SODA LAKE

COMMODITY PRODUCTION ALTERNATIVE

Although this alternative could provide recognition to the historic structures of the lake through the National Register nomination, the unique natural features of the lake such as the calcite towers and the ghost forest will not receive any protection and may over time be lost or destroyed. Recreational use of the lake will probably not increase much and recreational access to the lake may be jeopordized by not acquiring the land for legal access. If in time private development around the lake occurred, this would complicate the management situation and degrade the recreational potential of the lake.

This alternative provides some recognition to the historic mining structure located in the lake through the National Register nomination. This would provide some protection to those structures from authorized uses, since all proposals would be analyzed and reviewed by the BLM, Nevada State Historic Preservation Officer, and the Presidents' Council on Historic Preservation as to their impact on the site.

This alternative would allow appropriation under the Mining law.

RIGHTS-OF-WAY CORRIDORS

PREFERRED ALTERNATIVE

Soils

Standard Operating Procedure No. 7 stipulates that every reasonable means will be taken to minimize erosion and soil damage, therefore impacts to the soils resource are anticipated to be minimal, however some disturbance of surface and subsurface soil layers by access roads and construction could occur. In some areas construction activities and continued use by vehicular traffic could cause breakdown of soil structure making those soils prone to accelerated wind erosion; while in other areas the same disturbance could result in soil compaction, increasing runoff from snowmelt and summer convection storms, and causing accelerated sheet and rill erosion. Under this alternative approximately 350 acres could be highly impacted by roads and construction.

Water Quality and Quantity

Since Standard Operating Procedures No. 7 (erosion) and No. 11 (water pollution) protect water resources, impacts are expected to be minimal. However, some disruption of drainage patterns and stream channels could occur during construction activities. Furthermore, some water quality degredation due to increased turbidity from sediment laden run off could occur (Holberger, et al, 1975). These impacts could occur along 426 miles of corridors proposed for this alternative.

Vegetation

A minimal amount of vegetation could be destroyed along potential future transmission line maintenance roads and at tower bases. Undesirable plants such as halogeton could become established in disturbed areas. This could occur along 426 miles of corridors under this alternative.

Wildlife

Impacts to wildlife would be minimal given the Standard Operating Procedures outlined on pages 2-16 to 2-18 in the Draft RMP and 2-17 and 2-18 of this document.

Construction of right-of-way maintenance roads could open up more areas for hunting. This could reduce wildlife populations in those areas along 426 miles of corridors under this alternative.

Corridor P-Q-D-S-G follows the existing right-of-way on the northern perimeter of the Job Peak Bighorn Sheep Habitat Area. The proposed corridor with its associated development and maintenance would increase human intrusion into the area, and could cause disturbance of bighorn sheep. This would be a major impact to bighorn sheep populations. This corridor also follows close to or across the boundary of the Stillwater National Wildlife Refuge. Some mortality would be expected to occur for waterfowl that could fly into the lines (USFWS, 1984).

Powerlines of the size addressed in this Supplement (120 KV and larger) do not cause mortality to raptors by electrocution due to the distance between conductors. They do, however, provide the raptors with vantage points for their hunting, roosts safe from mammalian predators, and nest locations.

Visual Resources

About 19 percent of the RMP area could be directly affected by the proposed corridors under this alternative. Existing rights-of-way which would be converted to two-mile wide corridors total 187 miles or 239,360 acres (10 percent) in the RMP area. Proposed planning corridors total 74 miles or 222,720 acres (9 percent) of the area. A total of 361 miles and 462,080 acres (19 percent) of the RMP area would impact to visual resources of the area (Appendix A).

If transmission lines are built, corridors included in this proposal with the highest adverse impact would be the route over the Stillwater Range. Sixteen miles of this route

would impact Class B scenery in the Stillwater Range. Impacts to visual resources would occur along two other corridors in Dixie Valley and along U.S. Highway 95 and the Edwards Creek Valley.

Cultural Resources

Impacts to cultural resources from utility corridors under this alternative would be small. Most corridors follow upland areas and valleys where incidence of cultural sites is lower. Utility lines proposed for these corridors would be surveyed, and mitigation of any sites found would be handled as stated in Standard Operating Procedures No. 6 and No. 14. The highest potential for cultural sites occurs along the route over the Stillwater Range where it goes through East and West Job Canyons.

Recreation

This alternative strives to maintain the balance between primitive-rural and urban type recreation opportunities currently found in the RMP area. Most proposed corridors follow existing lines or roads, or cut across land already evaluated as being roaded natural or rural in nature, where vehicular recreation predominates. The corridor with the most impact is the Sunoco route over the Stillwater Range. This positively affects motorized recreational opportunities in that area, but could diminish non-motorized types of opportunities.

Livestock Grazing

The minimal loss of vegetation that could occur under this alternative would not result in any measurable impact to the livestock industry. If the establishment of potential future transmission line maintenance roads results in increased public access, some increased vandalism and livestock disturbance could occur. However, such roads could also be beneficial by improving access for livestock operations. This could occur along 426 miles of corridors under this alternative.

Forestry

Construction of better access routes into East Job Canyon could result in positive benefits to the forestry resource. Woodland products in this area could be harvested sometime in the future. No other corridors affect woodland resources under this alternative.

Wilderness

The preferred alternative would have very little impact om wilderness resource values in the two areas recommended suitable for wilderness designation. No corridor crosses either of the areas recommended suitable, although the existing 230 KV powerline forms a portion of the northern boundary of the Desatoya Mountain WSA and the southern boundary of the corridor crossing Edwards Creek Valley. Additional transmission lines built to the north and west of the existing line may be visible from portions of both areas recommended suitable, and may have a minor impact on visitors' feelings of isolation and solitude. Wilderness resource values on the 111,554 acres recommeded suitable for designation will be protected under this alternative.

Economic Conditions

The establishment of corridors in this alternative would result in reducing the time and cost of up-front right-of-way planning for utility companies. The procedures for right-of-way planning approval are simplified within designated corridors. The reduced time involved could be of importance in taking advantage of temporary power surplusses in other regions.

On the other hand since flexibility in future right-of-way location is limited under this alternative, it is likely that transmission lines would be longer. This would result in somewhat higher operating costs and power losses. This alternative would affect utility system reliability since it restricts the opportunities for seperating transmission lines.

This alternative could result in a minor decrease in the value of private lands near future transmission lines along the 426 miles of corridors proposed. Since transmission lines often affect the scenery as viewed from adjacent lands, they are perceived as reducing the value of these lands. This would likely be limited to the short term as as there is no clear evidence that long term land values are affected by transmission lines (Holberg, et al, 1975)

Social Conditions

The primary social impacts of this alternative are visual. These are analyzed in the Visual Resources Section. Visitors' enjoyment of the area's scenery could be reduced at nine areas where potential additional transmission lines could cross or parallel major highways. This would be a low intensity impact to a relatively large population. Area residents could have the views from their property disrupted by possible future transmission lines along 426 miles of proposed corridors. This would be a high intensity impact to a relatively small population. The scenic views of back country recreationists could be affected by possible future transmission lines in 426 miles of corridors. This would be a high intensity impact to a relatively small population.

SODA LAKE

PREFERRED ALTERNATIVE

This alternative provides protection for the unique natural and cultural features of Soda Lake. Mining activity within the site could be detrimental to recreation if the lakes features, or if proposed recreational facilities were impacted. Recreational recognition and use of the lake will possibly rise dramatically once designation occurs, the area becomes better known and some recreational facilities are constructed.

A Cooperative Management Agreement with local officials and groups would simplify maintenance and management of the area and provide a convenient vehicle for local input into management actions.

This alternative would provide good protection to the historic soda factory on site, especially from both authorized and non-authorized uses at the site.

Acquiring the land within the lake rim would protect both scenic quality and cultural resources from outside impacts by bringing the entire lake basin under federal control. This would also simplify any future recreational development or protection measures proposed.

The area would remain open to appropriation under the mining laws, however, if Soda Lake was added to the National Register of Historic Places any proposed mining activity would have to be reviewed by the BLM, the State Historic Preservation Officer and the Presidents' Council on Historic Preservation before any activity could begin and mitigating measures could be developed and attached as a condition of development.

UNAVOIDABLE ADVERSE IMPACTS

Due to the nature of the actions proposed, none of the adverse impacts described in this document are unavoidable.

SHORT TERM USE OF THE ENVIRONMENT IN RELATION TO LONG TERM PRODUCTIVITY

The use of corridors for utility facilities would limit their productivity for other uses.

Designation of Sooa Lake as an Area of Critical Environmental Concern would enhance its long term recreational and scientific value by protecting its natural and historic features.

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

Due to the nature of the action proposed, no irreversible or irretrievable commitments of resources would be involved.

MITIGATING MEASURES

Due to the potential for negative impacts to bighorn sheep and waterfowl that portion of corridor P-Q-D-S-G from Dixie Valley over the Stillwater Range and south to corridor I-F-R-E would only be used if the outlet from Dixie Valley south along corridor Q-D-F is blocked by the proposed expansion of the Navy withdrawal.

CHAPTER FIVE

List of Preparers

CHAPTER 5

LIST OF PREPARERS
LAHONTAN DRAFT SUPPLEMENT

Name	Title	Credentials
Pardee Bardwell	Wildlife Biologist	BS: Wildlife/Range Management Minor: Biology Experience: Range Technician (1 yr.), Range Conservationist (1 yr.), Wildlife Biologist (8 yrs.) - Bureau of Land Management
Sharlene Davis	Word Processing	AA: Liberal Arts Experience: Word Processor Operator (3 yrs.) - Bureau of Land Management
James deLaureal	Soil Scientist	BS: Agricultural Agonomy (Soils) Experience: Dairy Operations, Corporate and private, wholesale Nursery and Greenhouse, Soil Scientist (5 yrs.) - Bureau of Land Management
V. Lee Grover	Planning Coordinator	BS: Wildlife Conservation Experience: Forest Management (24 yrs.), Wildlife Management (3 yrs.), Planning (4 yrs.) - Bureau of Land Mangement
Linda Hansen	Editor	AA: Social Science Experience: Administration/Personnel (6 yrs.), Editor (3 yrs.) - Bureau of Land Management
Daniel Jacquet	Geologist	BS: Geology Experience: Geologist (1 yr.) - USGS, Geologist (4 yrs.) - Bureau of Land Management
Terry Knight	Wilderness Specialist/ Outdoor Recreation	BSFS: International Affairs Graduate Work: (3 yrs.) Outdoor Recreation and Land Use Planning Experience: Program Analysis (3 yrs.) - DHEW, Outdoor Recreation Planner/Wilderness (5 yrs.) - Bureau of Land Management

David Loomis	RMP Team Leader/Regional Economist	BA: Economics Experience: Economic Analysis (6 yrs.) - Bureau of Land Management
John Mabe	Range Conservationist	BS: Forestry/Range Management Experience: Range Conservationist (7 yrs.) - Bureau of Land Management
Chuck Otto	Outdoor Recreation Planner/Forester/DAT	BS: Forestry (BSF) Experience: Wild Horse Wrangler (1 yr.), Forester (3 yrs.), Outdoor Recreation Planner (3 yrs.) - Bureau of Land Management

RESOURCE SECTION	AUTHOR
Wildlife	Pardee Bardwell
Soils	James deLaureal
Corridors	V. Lee Grover
Geology, Energy and Minerals	Daniel Jacquet
Wilderness	Terry Knight
Range	John Mabe
Recreation/VRM/Forestry/Cultural	Chuck Otto

TECHNICAL REVIEW AND SUPPORT

Geology	Thomas Leshendoh	Nevada State Office
Recreation	Steve Smith	" "
Realty	Mike Moran	" "
RMP Coordinator	Ed Tilzey	" "
Visual Information	Caroline Norris	" "
Printing	Cal Robinson	" "

CHAPTER SIX

Consultation and Coordination

Chapter 6

Consultation and Coordination

Public Involvement

On September 27, 1983, the Draft Lahontan Resource Management Plan and Environmental Impact Statement (RMP/EIS) was released for a three month public review period which ended on January 3, 1984.

Based on public comments from the Draft RMP/EIS, it was determined that a Supplement to the Draft RMP was needed to analyze two additional issues; Rights-of-Way Corridors and designation of Soda Lake as an Area of Critical Environmental Concern.

Bureau personnel met with various county, state and federal agencies to inform them about the planning process and to coordinate actions proposed in their areas.

Availability of the Draft Supplement

The Draft Supplement Resource Management Plan and Environmental Impact Statement will be sent to all agencies, companies, and persons who have indicated an interest. Copies will also be sent to the following agencies and companies who have supplied information for the development of the Draft Supplement:

F

FEDERAL AGENCIES

U.S. Bureau of Reclamation
U.S. Bureau of Land Management
- Winnemucca District
- Susanville District
- Tonopah Resource Area

U.S. Forest Service
- Tahoe National Forest
- Plumas National Forest
- Humbolt National Forest
- El Dorado National Forest
- Toiyabe National Forest
- Northern California Region
- Intermountain Region
- Utah Energy Coordinator
- Austin Ranger Station

U.S. Fish and Wildlife Service
U.S. Navy
Western Area Power Administration

COUNTY/REGIONAL

Tahoe Regional Planning Agency
Alpine County Planning
Churchill County Planning
Douglas County Planning
Lyon County Planning
Mineral County Planning

STATE AGENCIES

Nevada Department of Wildlife

LOCAL

Nevada Bell Telephone Co.
Churchill County Phone Co.
Southwest Gas Co.
Southern Pacific Land Co.
Los Angeles Power and Water
Sierra Pacific Power Co.
Sun Geothermal Co.

This Supplement is intended to be used in conjunction with the Draft RMP/EIS which can be reviewed at the following locations:

BUREAU OF LAND MANAGEMENT OFFICES

Office of Public Affairs
Bureau of Land Management
18th and C Streets
Washington, D.C. 20240

Nevada State Office
300 Booth Street
P.O. Box 12000
Reno, NV 89701

Battle Mountain District Office
North 2nd and Scott Street
P.O. Box 194
Battle Mountain, Nevada

Carson City District Office
1050 E. William Street, Ste. 335
Carson City, Nevada 89701

Elko District Office
2002 Idaho Street
Elko, Nevada 89801

Ely District Office
Star Route 5, Box 1
Ely, Nevda 89301

Las Vegas District Office
4765 West Vegas Drive
Las Vegas, Nevada 89102

Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

PUBLIC LIBRARIES

Churchill County Public Library
553 South Main Street
Fallon, Nevada 89406

Carson City Library
900 N. Roop St.
Carson City, Nevada 89701

Lyon County Library
Yerington, Nevada

Mineral County Library
1st and D Streets
Hawthorne, Nevada 89415

Nevada State Library
Library Building
Carson City, Nevada 89710

Nye County Library
Tonopah, Nevada 89049

University of Nevada, Las Vegas
James R. Dickinson Library
4505 Maryland Parkway
Las Vegas, Nevada 89154

University of Nevada, Reno
Getchall Library
Reno, Nevada 89507

Washoe County Library
1301 South Center Street
Reno, Nevada 89505

APPENDIX

Appendix A
Visual Impacts by Alternative

No Action

100% of the RMP area is available

Resource Protection

Existing R/W's

187 miles - 1 mile wide

Miles of line	Impact	Acres of land
12	High	7,680
80	Moderate	51,200
95	Low	60,800
187	Total	119,680

5% of RMP area affected

Planning Corridors

48 miles proposed - 1 mile wide

Miles of line	Impact	Acres of land
0	High	0
22	Moderate	14,080
26	Low	16,640
48	Total	30,720

19% of RMP area affected

Total Impacts:
235 miles
150,400 acres
6% of RMP area affected

Commodity Production

Existing R/W's

187 miles - 3 miles wide

Miles of line	Impact	Acres of land
12	High	23,040
80	Moderate	153,600
95	Low	182,400
187	Total	359,040

15% of RMP area affected

Planning Corridors

393 miles - 5 miles wide

Miles of line	Impact	Acres of land
151	High	483,200
41	Moderate	131,200
201	Low	643,200
393	Total	1,257,602

52% of RMP area affected

Total Impacts.
580 miles
1,616,640 acres
67% of RMP area affected

Mid-Range

Existing R/W's

187 miles - 2 miles wide

Miles of Line	Impact	Acres of land
12	High	15,360
80	Moderate	102,400
95	Low	121,600
187	Total	239,360

10% of RMP area affected

Planning Corridors

174 miles - 2 miles wide

Miles of line	Impact	Acres of land
24	High	30,720
44	Moderate	56,320
106	Low	135,680
174	Total	222,720

9% of RMP area affected

Total Impacts:
361 miles
462,080 acres
19% of RMP area affected

Preferred

Same as Mid-Range Alternative

Planning Corridors

Same as Mid-Range Alternative

Criteria for Impact Ratings

High Impact - New lines through Class A or B scenic quality areas and new or additional line along high visual sensitivity zones.
Moderate Impact - Major additions to existing lines in Class A or B scenic quality area or High Visual sensitivity zones.
Low Impact - New lines or major addition through Class C scenery and in seldom seen areas.

BIBLIOGRAPHY

BIBLIOGRAPHY

Holberger, R. et. al, "Resource and Land Investigations (RALI) Program: Considerations in Evaluating Utility Line Proposals" Prepared for. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C. 1975.

U.S. Fish and Wildlife Service, Hollock, McNutt and Le Fever, personal communication, May, 1984.

U.S. Department of Interior, Bureau of Land Management, Carson City District, "Visual Resource Management Inventory: Scenic Quality Ratings", 1982.

INDEX

INDEX

Alternatives I, 2-1, 4-1, 4-3, 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16

Area of Critical Environmental Concern (ACEC) I, 1-1, 1-3, 2-1, 2-2, 2-3, 2-5, 2-8, 2-9, 2-10, 2-11, 2-13, 4-4, 4-7, 4-10, 4-13, 4-16 4-17

Corridors I, 1-1, 1-3, 2-1, 2-2, 2-3, 2-5, 2-7, 2-9, 2-11, 3-1, 4-1, 4-5, 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17

FLPMA 1-1

Issues I, 1-3

Lahontan Draft RMP/EIS 1-1, 1-3, 2-1, 3-1, 4-2, 4-5, 4-8, 4-11, 4-14

NEPA 1-1

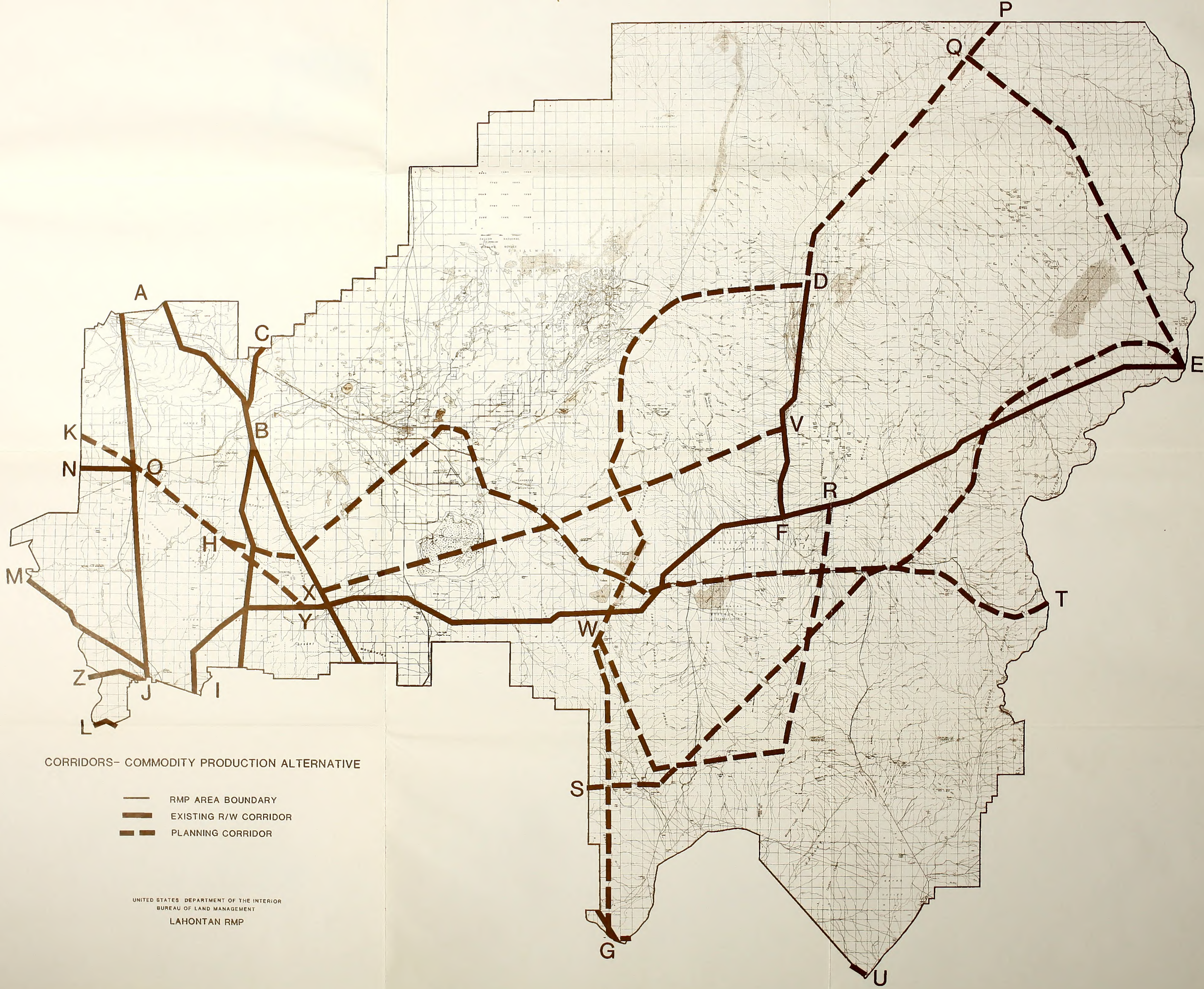
Planning Process 1-1

ROS (Recreation Opportunity Spectrum) 4-3

BLM CC PT 84 016 1792

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

Form 1279-3
(June 1984)
BORROWE
SF 85.35 .M3 L235 1983
Supplement to the draf
resource management
DATE LOANED
BORROWER
7-11-88
~~Chuck Otto (406)~~
Lewistown Do Due
12/19/88
Amira Handy
USDI - BLM



CORRIDORS- COMMODITY PRODUCTION ALTERNATIVE

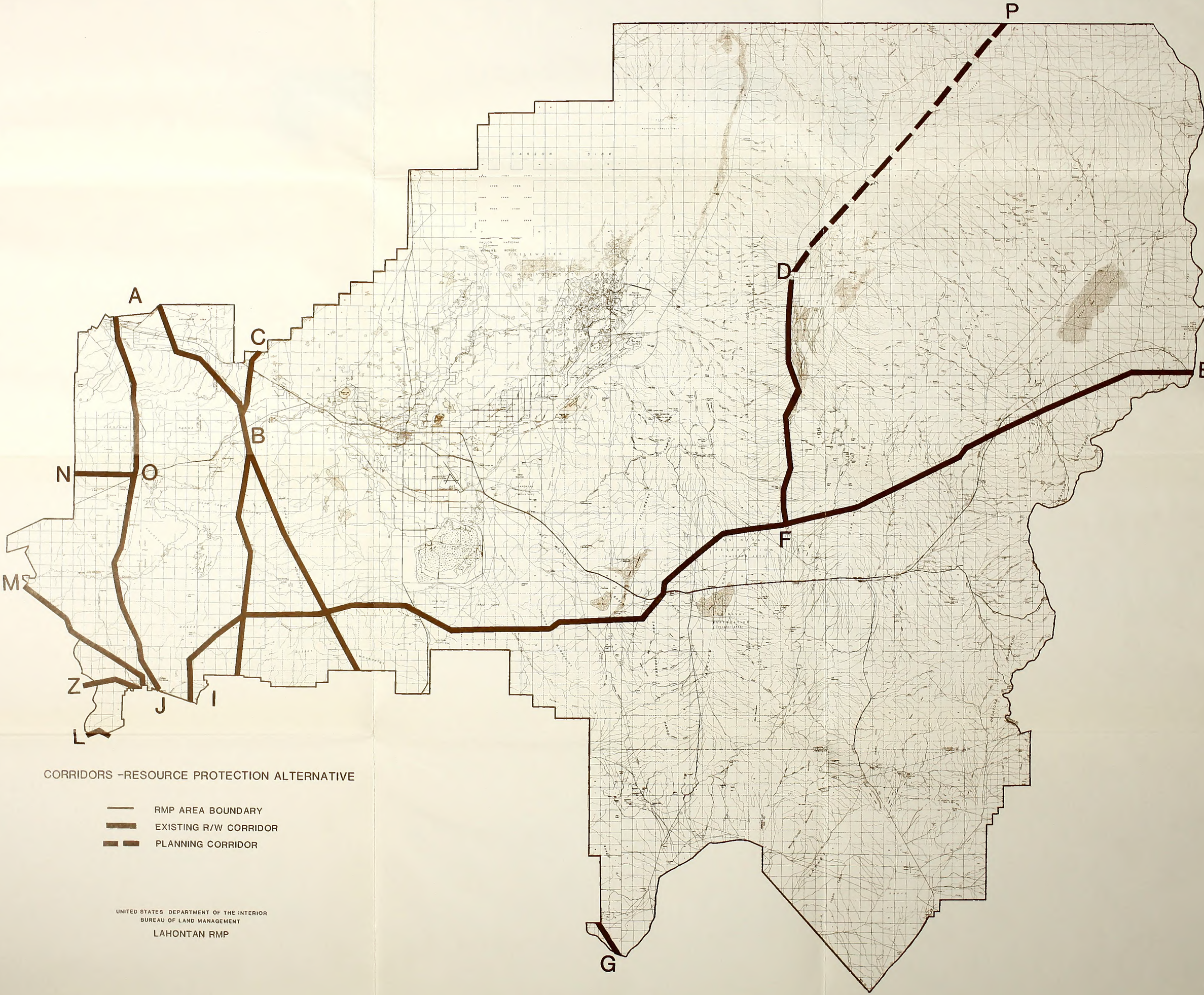
RMP AREA BOUNDARY

EXISTING R/W CORRIDOR

PLANNING CORRIDOR

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LAHONTAN RMP



CORRIDORS -RESOURCE PROTECTION ALTERNATIVE

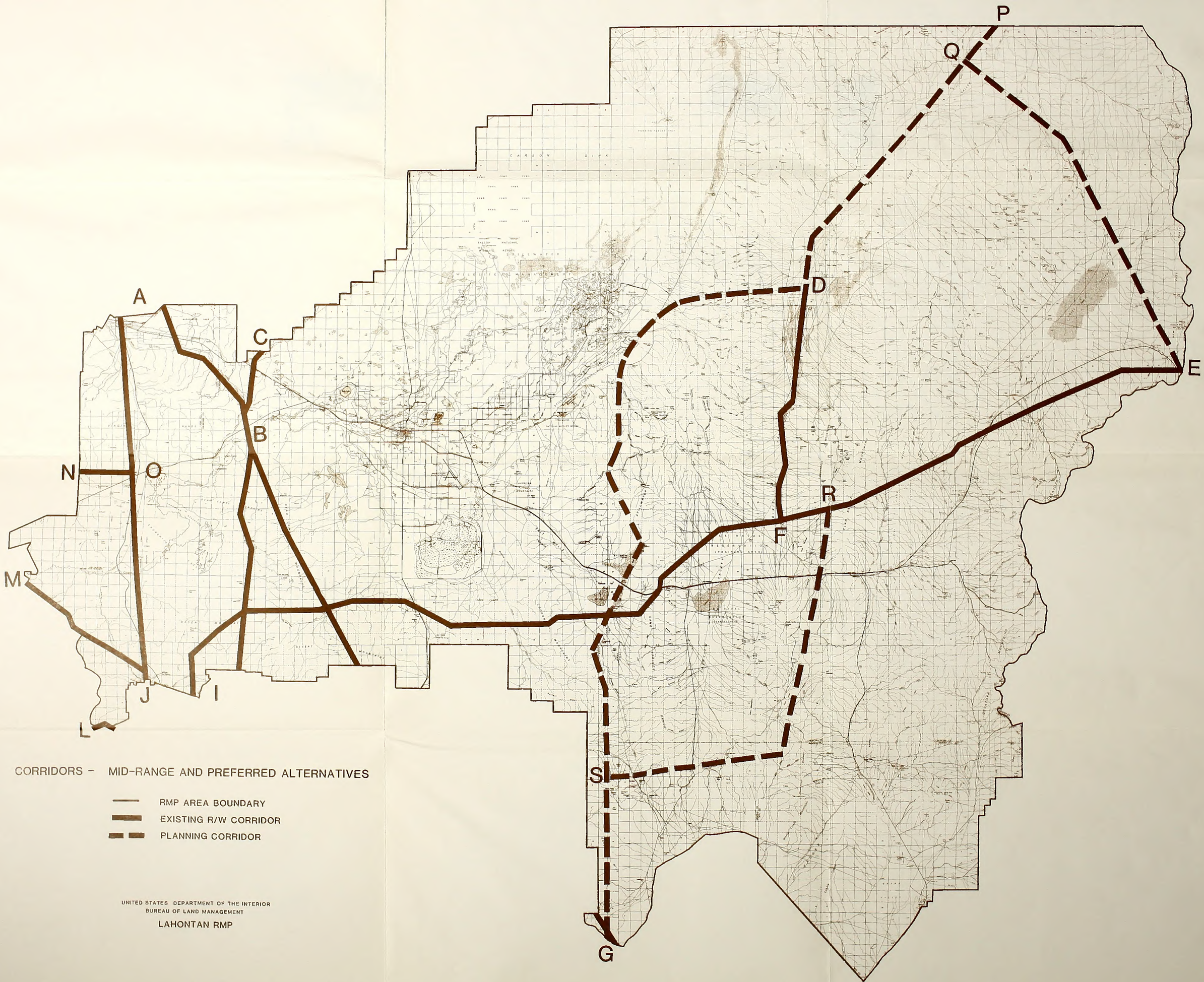
RMP AREA BOUNDARY

EXISTING R/W CORRIDOR

PLANNING CORRIDOR

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LAHONTAN RMP



CORRIDORS - MID-RANGE AND PREFERRED ALTERNATIVES

RMP AREA BOUNDARY

EXISTING R/W CORRIDOR

PLANNING CORRIDOR

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LAHONTAN RMP